**NASA Occupational Health Medical Quality Assurance Program
Employee and Management Directed Principles**

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Section I: Employee Care Principles
Managing Employee Assessment

MEA.1   All employees cared for by the NASA Occupational Health (OH) have their
                   health care needs identified through an established assessment process.

Intent of MEA.1
When employees enter NASA OH, clinic staff members will initially determine the
reason that the patient is there. Qualified staff members need to collect specific
information at this stage, and the procedures for obtaining it, depend on the employee's
needs and the setting in which care is being provided i.e., employees presenting for health
screening vs. acute injury. Program policy and procedures define how this process
operates and determines what information needs to be documented during registration.

<div align="center">Measurable Elements of MEA.1</div>

1.   Clinic policy and procedure defines the information to be obtained for each type
        of patient.
2.   Clinic policy and procedure defines who performs the assessment.
3.   Clinic policy identifies the information that requires documentation as the patient
        enters the program.

MEA.1.1   NASA OH assures that the clinics and services have determined the scope
                   and content of assessments, based on applicable laws and regulations.

Intent of MEA.1.1
To assure consistent assessment of patient needs the clinic defines, in writing, the scope
and content of assessments to be performed by each clinical discipline. Assessments are
performed by each discipline within its scope of practice, licensure, applicable laws and
regulations, or certification. The program defines assessment activities in the different
settings (field, clinic) in which care is provided.

<div align="center">Measurable Elements of MEA.1.1</div>

1.   The scope and content of assessments by each discipline are defined in writing.
2.   Only those individuals permitted by licensure, applicable laws and regulations, or
        certification, perform the assessments.
3.   Patient assessment activities carried out in various settings are defined in writing.

MEA.1.2   Occupational health clinical practice guidelines, adopted by the NASA
                   OH, are used to guide patient assessments and reduce unwanted variation.

Intent of MEA.1.2
Clinical practice guidelines are a means to improve quality of occupational health care. Occupational healthcare guidelines assist practitioners and employees (as patients) to make clinical decisions. Guidelines are an effective way to improve processes by reducing variance. Clinical practice guidelines are found in the occupational health literature under many practice parameters, practice guidelines, patient care protocols and standards of practice, clinical pathways, and other names. The scientific underpinnings of the clinical guidelines should be evaluated for applicability in a particular setting and employee population.

All clinical practice guidelines should be reviewed and approved by program leaders and clinical practitioners before implementation. This review and approval process ensures that the guidelines are adapted to the patient needs, and program resources. Once implemented, guidelines should be reviewed on an annual basis to assure ongoing scientific congruence and continued relevance to the employees served by the organization.

Measurable Elements of MEA.1.2
1.   Organization and clinical leaders establish criteria for selection of clinical practice guidelines.
2.   Organization and clinical leaders adapt guidelines as appropriate for the population of employees served and resources available.
3.   Approved guidelines are employed to direct the assessment of employees for which the guideline is applicable.
4.   Approved and implemented guidelines are reviewed at least every two years and revised as needed to reflect updates in clinical practice and patient needs.
5.   Approved guidelines are utilized in peer review processes.

MEA.1.3   NASA OH assures that clinics and services complete assessments within a prescribed timeframe.

Intent of MEA.1.3
To begin appropriate treatment as quickly as possible, the patient's initial assessment must be completed and documented in the patient's medical record as soon as possible. The clinic determines the timeframe for completing patient assessments, in particular the medical evaluations.

Decisions regarding these timeframes will take into consideration several factors. These include evaluating the types of employees cared for by the clinic, the complexity and duration of their care, and the dynamics of conditions surrounding their care. When an assessment is partially or entirely completed outside the organization, such as by a community-based provider, the findings should be reviewed by a qualified staff member.

Measurable Elements of MEA.1.3

1. Appropriate timeframes for performing and completing assessments are established for all clinical settings, services, and patient populations.
2. Assessments are completed within the time frames established by the organization.
3. The findings of patient assessments performed outside the organization are validated and completed by staff members.

MEA.1.4   NASA OH assures that clinic assessment findings are documented in the patient's medical record and are readily available to those responsible for the patient's care.

Intent of MEA.1.4

Assessment findings are used throughout the care process to evaluate patient progress and understand the need for reevaluation. It is essential that patient assessments are documented well and can be quickly and easily retrieved for review by those who are providing care for that patient.

Measurable Elements of MEA.1.4

1. Assessment findings are documented in the patient's medical record.
2. Those caring for the patient can find and retrieve assessments as needed from the patient's medical record.

MEA.2   NASA OH assures that each clinic patient's initial assessment contains an evaluation of physical, psychological, and social factors, including a physical examination and health history.

Intent of MEA.2

The initial assessment of a patient is critical to identifying the patient's needs and care process. The initial clinic assessment provides an understanding of the care the patient is seeking. This information assists the staff members to select the best care setting for the employee, form an initial diagnosis, and evaluate the employee's response to any previous care.

To provide this information, the initial assessment includes an evaluation of the employee's health status by way of a physical examination and complete health history. Consideration of various contexts, such as social, cultural, and family, is important. Factors in these areas can influence the patient's response to illness and treatment. Families and significant others input may also be of help to the provider (as appropriate).

Measurable Elements of MEA.2

1. Each employee (e.g. patient) has an initial assessment that meets clinic guidelines.
2. Each employee receives an initial physical assessment as appropriate.
3. The physical assessment includes a physical exam and health history.
4. The initial assessment results in understanding the care the patient is seeking.

5.   The initial assessment results in selection of the best setting for the employee's care.
6.   The initial assessment results in an initial diagnosis (when applicable).
7.   The initial assessment results in understanding care previously received by the patient.
8.   NASA OH assures that clinics or services identify and document the employee's medical needs from the initial assessment.
9.   NASA OH assures that clinics or services provide an initial medical assessment of emergency patients, appropriate to their needs and conditions.
10.   NASA OH assures those clinics and services document the initial nursing assessment in the employee's medical record (when appropriate).

MEA.2.1   NASA OH assures that employees for preventive health screening are assessed for nutritional status, and are referred for further assessment and treatment when necessary.

Intent of MEA.2.1
The information gathered at the initial assessment may indicate that the employee needs further or more in-depth assessment. In particular, some patients entering the clinic may need special nutritional care or other services related to their acute and chronic healthcare needs.

Measurable Elements of MEA.2.1
1.   Employees are screened for nutritional risk as part of an initial preventive health maintenance assessment.
2.   Employees determined to be at risk for nutritional problems, according to the screening criteria, receive a further nutritional assessment.

MEA.2.2   NASA OH assures that the clinic provides an initial evaluation that includes determining the need for coordinated care planning and/or additional specialized assessments.

Intent of MEA.2.2
Continuity of care requires special preparation and considerations for some employees. The organization develops a mechanism by which these patients can receive coordinated care outside of the general occupational health program.

Continuity of care considerations include vocational and return to work assessments addressing restrictions, limitations, and appropriate accommodations to be made for the employee.

Measurable Elements of MEA.2.2
1.   A process is in place to identify when the need for additional specialized assessments is appropriate.

2.   Employees returning to work after illness or injury provide a work recommendation from their treating physician.

3.   The return to work evaluation, with appropriate limitations, will be provided by a qualified NASA OH nurse or physician.

MEA.3   NASA OH assures that the clinics and services have a process for reevaluating all employees at appropriate intervals, to determine their response to treatment and to plan for continued treatment or referral.

Intent of MEA.3

Reevaluation is essential to understanding if care decisions are appropriate and effective. Employees are reassessed throughout the care process at intervals appropriate to their needs and plan of care, or as defined in the program's guidelines and instructions. The results of these reassessments are noted in the employee's medical record for the information and use of all those caring for the patient.

Reassessment results are entered in the employee's medical record at regular intervals. Opportunities for reassessment include intervals during active care, at every follow-up visit, and when efficacy of medications and other treatments have been determined.

Reassessment results are needed in response to a significant change in the employee's condition, when the employee's diagnoses change or altered care needs require treatment plan revisions.

Reassessments are not needed for one-time clinic visits that are not work related. These employees are referred to their primary care providers.

<div align="center">Measurable Elements of MEA.3</div>

1.   Employees are reassessed to determine their response to treatment.
2.   Employees are reassessed to plan for continued treatment or referral.
3.   Employees are reassessed at intervals appropriate to their condition, plan of care, individual needs, or according to program guidelines.
4.   Reassessments are documented in the employee's medical record.

MEA.4   NASA OH assures that qualified clinic individuals conduct the assessments and reassessments.

MEA.4.1   NASA OH assures that clinic and service processes address assessment and reassessment responsibilities, and are defined in writing.

Intent of MEA.4 and MEA.4.1

The assessment and reassessment of patients are critical processes that require special education, training, knowledge and skills. Thus, for each type of assessment, those individuals qualified to perform the assessment are identified and their responsibilities defined in writing. In particular, those individuals qualified to conduct emergency assessments or assessments of nursing needs are clearly identified.

Measurable Elements of MEA.4

1. The clinic identifies qualifications required to conduct patient assessments and reassessments.
2. Qualified individuals conduct emergency assessments.

Measurable Elements of MEA.4.1

1. Those qualified to conduct patient assessments and reassessments have their responsibilities defined in writing.

MEA.5   NASA OH assures that clinics and services have laboratory services available to meet patient needs, and all such services meet applicable local and national standards, laws, and regulations.

MEA.5.1   NASA OH assures that contracted clinical pathology services are available to meet patient needs. All such services meet applicable local and national standards, laws, and regulations.

Intent of MEA.5 and MEA.5.1

The clinics and services have a system for providing necessary laboratory services. The laboratory services are organized and provided in a manner that meets applicable local and national standards, laws, and regulations.

Laboratory services may be provided within the clinic or by agreement with outside laboratory services (or both).

Outside sources of laboratory services meet applicable laws and regulations and have an acceptable record of accurate, timely services.

Measurable Elements of MEA.5

1. Laboratory services meet applicable local and national standards, laws, and regulations.

Measurable Elements of MEA.5.1

1. Adequate, regular and convenient laboratory services are available to meet needs.
2. Outside sources are selected based on an acceptable record and compliance with laws and regulations as well cost effectiveness to the NASA OH.

MEA.5.2   NASA OH assures that clinics and services have a laboratory safety program in place, followed, and documented.

Intent of MEA.5.2

The laboratory has an active safety program to the degree required by the risks and hazards encountered in the laboratory. The program addresses safety practices and prevention measures for laboratory staff, other staff, and patients when present. The laboratory program is coordinated with the organization's safety management program.

The laboratory safety management program includes written policies and procedures that support compliance with applicable standards and regulations. Written policies and procedures for the handling and disposal of infectious and hazardous materials are incorporated. Any laboratory practices and hazards that may be expected are included.

Orientation for all laboratory staff to safety procedures and practices is addressed. Ongoing in-service education is provided in a timely manner for new procedures and newly acquired or recognized hazardous materials.

Measurable Elements of MEA.5.2

1.   A laboratory safety program is in place and is appropriate to the risks and hazards encountered.
2.   The program is coordinated with the organization's safety management program.
3.   Written policies and procedures address the handling and disposal of infectious and hazardous materials.
4.   Appropriate safety devices are available.
5.   Laboratory staffs are oriented to safety procedures and practices.
6.   Laboratory staffs receive education for new procedures and newly acquired or recognized hazardous materials.

MEA.5.3   NASA OH assures that clinic individuals have adequate training, skills, orientation, and experience administer the laboratory tests and interpret the results.

Intent of MEA.5.3

The organization identifies laboratory staff members who perform testing and those who direct or supervise testing. Supervisory and technical staff members have appropriate and adequate training, experience, and orientation to perform their work. Technical staff members are given work assignments consistent with their training and experience. In addition, there are sufficient numbers of qualified laboratory personnel to perform tests promptly and provide adequate laboratory staffing during all hours of operation.

Measurable Elements of MEA.5.3

1.   Those individuals who perform testing and those who direct or supervise testing are identified.
2.   Appropriately, trained and experienced staffs administer laboratory tests.

3.   Appropriately, trained and experienced staff members interpret test results.
4.   There is an adequate number of qualified staff to meet patient demands.
5.   Supervisory staff members have training and experience appropriate to their responsibilities.
6.   Technical staff members have training and experience appropriate to their responsibilities.

MEA.5.4   NASA OH assures that clinics and services have a process for receiving laboratory results in a timely manner.

Intent of MEA.5.4
The clinic defines the time period for reporting laboratory test results. Results are reported within a time frame based on patient needs, services offered, and treatment planning needs. When laboratory services are provided by contract with an outside organization, the reports are also timely as set forth by program policy or as identified in the contract.

Measurable Elements of MEA.5.4
1.   The organization has established the expected timeframe for reporting results.
2.   Laboratory results are reported with a timeframe to meet patient needs.

MEA.5.5   NASA OH assures all clinics and service laboratory equipment is regularly inspected, maintained, and calibrated, and appropriate records are maintained for these activities.

Intent of MEA.5.5
Laboratory staff members work to assure that all equipment functions at acceptable levels and in a manner that is safe to the operator(s).

A laboratory equipment management program provides for selecting and acquiring equipment, identifying and taking inventory of equipment, and assessing equipment use through inspection, testing, calibration, and maintenance. A system for monitoring and acting on equipment hazard notices, recalls, reportable incidents, problems and failures will be incorporated.

Testing, maintenance, and calibration frequency are related to the laboratory's use of the equipment and its documented history of service.

All aspects of the laboratory equipment management program will be documented.

Measurable Elements of MEA.5.5
1.   There is a laboratory equipment management program.
2.   The program includes selecting and acquiring equipment
3.   The program includes taking an inventory of equipment
4.   The program includes inspecting and testing equipment.

5.   The program includes calibrating and maintaining of equipment.
6.   The program includes monitoring and follow-up of reported problems and failures.
7.   The program criteria are followed and activities are appropriately documented.
8.   There is adequate documentation of all testing, maintenance and calibration of equipment.

MEA.5.6   NASA OH assures that the clinics and services provide for essential reagents and other supplies to be regularly available.

Intent of MEA.5.6
The clinic has identified those reagents and supplies necessary to regularly provide laboratory services to its patients. A process to order or secure those essential reagents and other supplies is effective. All reagents are stored and dispensed according to defined procedures. The periodic evaluation of all reagents ensures accuracy and precision of results. Written guidelines ensure the complete and accurate labeling of reagents and solutions.

Measurable Elements of MEA.5.6
1.   Essential reagents and supplies are identified.
2.   Essential reagents and supplies are available.
3.   All reagents are stored and dispensed according to guidelines.
4.   All reagents and solutions are completely and accurately labeled.
5.   All reagents are periodically evaluated for accuracy and results.

MEA.5.7   NASA OH assures that the clinics and services have procedures for collecting, identifying, handling, safely transporting and disposing of specimens. The identified procedures are followed.

Intent of MEA.5.7
Procedures are developed and implemented for the management of laboratory specimens. Primary activities include the ordering of tests, collection and identification of specimens, sample transportation, storage, and preservation, and receiving, logging-in, and tracking of specimens.

Laboratory management procedures are observed for specimens sent to outside sources for testing.

Measurable Elements of MEA.5.7
1.   Procedures guide the ordering of tests.
2.   Procedures guide the collection and identification of specimens.
3.   Procedures guide the transport, storage, and preservation of specimens.
4.   Procedures guide the receipt and tracking of specimens.
5.   The procedures are observed when outside sources of services are used.
6.   The procedures are implemented.

MEA.5.8   NASA OH assures clinics and services have established norms and ranges
              that are used to interpret and report clinical laboratory results.

Intent of MEA.5.8
The laboratory establishes reference intervals or "normal" ranges for each test performed.
The range is either included in the medical record, as part of the report or by inclusion of
a current listing of such values approved by the laboratory director. Reference ranges are
furnished when an outside source performs the test. The reference ranges are appropriate
to the NASA OH patient populations and are reviewed and updated when methods
change.

<center>Measurable Elements of MEA.5.8</center>
1.   The laboratory has established reference ranges for each test performed.
2.   The range is included in the medical record at the time test results are reported.
3.   Reference ranges are furnished when tests are performed by outside sources.
4.   Reference ranges are appropriate to the organization's patient population.
5.   Reference ranges are reviewed and updated as needed.

MEA.5.9   NASA OH assures that clinics and services provide for quality control
              procedures that are established, followed, and documented.

MEA.5.9.1   NASA OH assures that clinics and services provide a process for proficiency
            testing.

Intent of MEA.5.9 and MEA.5.9.1
Sound quality control systems are essential to providing excellent pathology and clinical
laboratory services. Quality control procedures include validation of the test methods
used for accuracy, precision, and reportable range, testing of reagents (see MEA.5.6), and
daily surveillance of results by qualified laboratory staff. Rapid corrective action occurs
when a deficiency is identified with documentation of results and corrective actions.

The laboratory participates in an approved proficiency-testing program when available.
The laboratory maintains a cumulative record of participation in a proficiency testing
process.

<center>Measurable Elements of MEA.5.9</center>
1.   There is a quality control program for the clinical laboratory.
2.   The program includes the validation of test methods.
3.   The program includes the daily surveillance of test results.
4.   The program includes rapid correction of deficiencies.
5.   The program includes the documentation of results and corrective actions.
6.   The program is implemented.

<center>Measurable Elements of MEA.5.9.1</center>

1.   The laboratory participates in a proficiency-testing program.
2.   A cumulative record of participation is maintained.
3.   All laboratory services and tests are included in the program.

MEA.5.10   NASA OH assures that clinics and services have a process for regular reviews of quality control results for all outside sources of laboratory services.

Intent of MEA.5.10
When the clinics or services use outside sources of laboratory services, they receive and review, on a regular basis, the quality control results of that outside source. Qualified individuals review the quality control results.

Measurable Elements of MEA.5.10
1.   Quality control results from outside sources that are regularly reviewed.
2.   Qualified individuals review the quality control results.

MEA.5.11   NASA OH assures that clinics and services have access to experts in specialized diagnostic areas when necessary.

Intent of MEA.5.11
The clinic is able to identify and contact experts in specialized diagnostic areas. The clinic maintains a roster of such experts as needed to effectively coordinate care.

Measurable Elements of MEA.5.11
1.   Experts in specialized diagnostic areas are utilized when needed.

MEA.6   NASA OH assures that clinics and services provide radiology services that meet applicable local and national standards, laws, and regulations.

Intent of MEA.6
The organization has a system for providing radiology services when required by its patient population, clinical services offered, and health care provider needs. Radiology services provided on premises meet all applicable local and national standards, laws, and regulations.

Radiology services may be provided within the organization, by agreement with another agency, or both.

When outside sources are utilized for radiology services they are convenient for the patient to access, and reports are received in a timely manner, supporting continuity of care. Outside sources are selected by the organization based on the recommendation of the clinic director. Outside sources for radiology services meet applicable laws and regulations and have an acceptable record of accurate, timely services.

Measurable Elements of MEA.6

1.   Radiological services meet applicable state and national standards, laws, and regulations.

Measurable Elements of MEA.6.1

1.   Adequate, regular, and convenient radiology services are available to meet patient care needs.
2.   Outside radiology sources are selected based on an acceptable record and compliance with laws and regulations.

MEA.6.2   NASA OH assures that clinics and services have a radiation safety program that is established, followed, and documented.

Intent of MEA.6.2

For radiology service provided on premises, the clinic has an active radiation safety program, to the degree required by the risks and hazards encountered. The clinic addresses safety practices and prevention measures for radiology staff, other staff members, and patients. The program is coordinated with the organization's safety management program.

The radiation safety management program includes written policies and procedures that support compliance with applicable standards, laws and regulations. Written policies and procedures are provided for the handling and disposal of infectious and hazardous materials.

Safety protective devices are available and appropriate to the practices and hazards encountered. All radiology staff receives orientation to safety procedures and practices. In-service education is provided for new procedures and newly acquired or recognized hazardous materials.

Measurable Elements of MEA.6.2

1.   A radiation safety program is established and appropriate to the risks and hazards encountered.
2.   The radiation safety program is coordinated with the organization's safety management program.
3.   Written policies and procedures address compliance with applicable standards, laws, and regulations.
4.   Written policies and procedures address the handling and disposal of infectious and hazardous materials.
5.   Appropriate radiation safety devices are available.
6.   Laboratory staff are oriented to safety procedures and practices
7.   Laboratory staffs receive education for new procedures and hazardous materials.

MEA.6.3   NASA OH assures that the clinics and services provide for individuals with adequate training, skills, orientation, and experience to administer the imaging tests and interpret the results.

Intent of MEA.6.3
The clinic identifies radiology staff members who perform imaging tests and those who direct or supervise procedures. Supervisory and technical staff members have appropriate and adequate training, experience, and orientation to perform their work. Technical staff members are given work assignments consistent with their training and experience. In addition, there are sufficient numbers of qualified radiology personnel to perform tests promptly and provide adequate staffing during all hours of operation.

Measurable Elements of MEA.6.3
1.   Those individuals who perform imaging procedures and those who direct or supervise procedures are identified.
2.   Appropriately trained and experienced staff members perform imaging tests.
3.   Appropriately trained and experienced staff members interpret test results.
4.   There is an adequate number of qualified staff to meet patient needs.
5.   Supervisory staff members have training and experience appropriate to their responsibilities.
6.   Technical staff members have training and experience appropriate to their responsibilities.

MEA.6.4   NASA OH assures that the clinics and services provide for radiology results in a timely manner, as defined by the organization.

Intent of MEA.6.4
The clinics or services define the time period for reporting diagnostic radiology test results. Results are reported within a timeframe based on patient needs, services offered, and the needs of clinical staff members. Radiology tests performed by outside contractors of services are reported according to program policy or contract requirements.

Measurable Elements of MEA.6.4
1.   The clinic has established the timeframe for expectation of report results.
2.   Radiology results are reported within a timeframe to meet patient needs.

MEA.6.5   NASA OH assures that the clinics and services have a process that provides for diagnostic equipment to be regularly inspected, maintained, and calibrated, and appropriate records are maintained for these activities.

Intent of MEA.6.5
Radiology staff members work to ensure that all equipment functions at acceptable levels and in a manner that is safe to the operator(s). A radiology equipment management program provides for selection and acquisition of equipment, identification and inventory

of equipment, and assessment of equipment through inspection, testing, calibration, and maintenance.

Testing, maintenance, and calibration frequency are related to the use of the equipment and its documented history of service. Equipment hazard notices, recalls, reportable incidents, problems and failures are addressed systematically and include monitoring and action. All aspects of the radiology equipment management program are documented.

Measurable Elements of MEA.6.5

1. There is a radiology equipment management program.
2. The program includes inspecting and testing equipment.
3. The program includes calibrating and maintaining equipment.
4. The program includes monitoring and follow-up.
5. The program is established and followed.
6. There is adequate documentation of all testing, maintenance, and calibration of equipment.

MEA.6.6   NASA OH assures that clinics and services provide for X-ray film and other supplies to be available as needed.

Intent of MEA.6.6
The clinic has identified the film, reagents, and supplies necessary to regularly provide radiology services to its patients. A process to order or secure essential film, reagents, and other supplies is effective. All supplies are stored and dispensed according to defined procedures. The periodic evaluation of reagents ensures accuracy and precision of results. Written guidelines ensure the complete and accurate labeling of film, reagents, and solutions.

Measurable Elements of MEA.6.6

1. Essential reagents and supplies are identified.
2. Essential reagents and supplies are available.
3. All reagents are stored and dispensed according to guidelines.
4. All reagents are periodically evaluated for accuracy and results.
5. All reagents and solutions are completely and accurately labeled.

MEA.6.7   NASA OH assures that quality control procedures are established, followed, and documented.

Intent of MEA.6.7
Sound quality control systems are essential to providing excellent radiology services. Quality control procedures include validation of the test methods used for accuracy and precision, daily surveillance of results by qualified laboratory staff members, testing of reagents and solutions (see MEA.6.6), rapid corrective action when a deficiency is identified, and documentation of results and corrective actions.

Measurable Elements of MEA.6.7
1.   Quality control includes validation of test methods.
2.   Quality control includes daily surveillance of results
3.   Quality control includes testing reagents and solutions.
4.   Quality control includes rapid action when a deficiency is identified.
5.   Quality control includes documenting results and corrective actions.

MEA.6.8   NASA OH assures that regular reviews are conducted by the clinics or services, to provide for quality control results from all outside sources of diagnostic services.

Intent of MEA.6.8
When the program uses outside sources of radiology services, the quality control results of that outside source are received and reviewed, on a regular basis. Qualified individuals are responsible for the quality control process.

Measurable Elements of MEA.6.8
1.   Quality control results from outside sources are reviewed regularly.
2.   Qualified individuals review the quality control results.

Section I: Employee Care Principles
Employee Care Process

ECP.1   NASA OH policies and procedures, and applicable laws and regulations
                  guide the uniform care of all employees in the clinics and services.

Intent of ECP.1

Employees with the same occupational health problems and care needs have a right to
receive the same quality of care throughout the organization.

Access to appropriate care and treatment is equivalent among all groups served by the
clinics and services of the NASA OH. The intensity of the employee's presenting
complaint determines the resources allocated to meet the employee's needs. The level of
care provided to employees is the same throughout the program.

Uniform patient care results in the efficient use of resources and permits the evaluation of
outcomes of similar care throughout the program.

Measurable Elements of ECP.1

1.   Clinical and managerial leaders collaborate to assure uniform care processes.
2.   Policies and procedures guide uniform care and reflect relevant laws and
        regulations.

ECP.2   NASA OH provides for processes to integrate and coordinate the care
                provided to each patient.

Intent of ECP.2

Clinical leaders use tools and techniques to better integrate and coordinate care for their
patients. Examples include team-delivered care, combined documentation forms, and an
integrated medical record.

Measurable Elements of ECP.2

1.   Care planning is integrated and coordinated throughout the organization.

ECP.2.1   The care provided to each NASA OH patient is planned and written in the
              employee's medical record as defined by the clinics or services.

Intent of ECP.2.1

Patient care processes are carefully planned to achieve optimal outcomes. The planning
process involves identifying and prioritizing the treatments and procedures to meet the
employee's needs. The employee is involved in the planning process.

Each provider records observations and treatments in the employee's medical record.
Also, any collaborative treatment team meetings or similar patient discussions are written

in the medical record. The results or conclusions of the meeting or discussion are noted in the employee's medical record.

<div align="center">Measurable Elements of ECP.2.1</div>

1.   The care for each patient is planned.
2.   The care planned for each patient is noted in the employee's medical record.
3.   The planned care is provided.
4.   The care provided for each patient is noted in the employee's medical record.

ECP.2.2   NASA OH assures that clinics and services provide a mechanism that those permitted to write patient care orders, will write the order in the employee's medical record in a standardized location.

Intent of ECP.2.2
Patient care activities include writing orders for laboratory tests and administration of medications. Written orders permit the understanding of the specifics of an order.

Each clinic decides which patient care orders must be written rather than given verbally, who is permitted to write orders, and where orders are to be located in the employee's medical record.

<div align="center">Measurable Elements of ECP.2.2</div>

1.   Orders are written when required.
2.   Only those permitted to write patient care orders, do so.
3.   Orders are found in a uniform way in patient medical records.

ECP.2.3   NASA OH clinic and service tests and procedures performed within the patient care process are written into the employee's medical record.

Intent of ECP.2.3
The results of any procedures performed are noted in the employee's medical record.

<div align="center">Measurable Elements of ECP.2.3</div>

1.   Tests and procedures are documented in the employee's medical record.
2.   The results of these tests and procedures performed are also documented in the employee's medical record.

ECP.3   NASA OH clinics and services have clinical practice guidelines that are used to direct the employee's clinical care.

Intent of ECP.3
The goals of an occupational health care program are to standardize clinical care processes. A commitment is made to reduce risks within care processes; especially those

associated with critical decision steps. Clinical care is provided in a timely, effective manner, efficiently using available resources.

Organizations use a variety of tools and approaches to reach these goals. Care providers seek to develop clinical care processes and make clinical care decisions based on the best available scientific evidence. Clinical practice guidelines are useful in this effort.

In addition, clinicians seek to standardize care processes by using immunization schedules and other methods that provide effective integration and coordination of care and efficient use of available resources as well as reducing variation in the patient assessment process (MEA.1.2).

When such guidelines and other related tools are available and relevant to the NASA OH patient population and mission, there is a process to evaluate the guideline or protocol, adapt it to the occupational health program's needs and resources, and train staff members to use the guideline or protocol.

Measurable Element of ECP.3

1.   Clinical guidelines are used to guide patient care processes when appropriate.

ECP.4   NASA OH clinics and services have policies and procedures that guide the care of high-risk patients and the provision of high-risk services.

Intent of ECP.4
Some employees care is considered high risk because of their age, medical history, or healthcare needs. In an occupational health program a variety of services are provided, but most service recipients are not considered high risk. Clinics and services should determine criteria for identifying those employees who are at risk.

Policies and procedures are important tools for staff members to identify at risk employees and provide appropriate services. Care providers are able to respond to at risk employees in a thorough, competent, and uniform manner.

The clinical and managerial leaders take responsibility for identifying employees and services considered high risk in the occupational health setting e.g., resuscitation, using a collaborative process to develop relevant policies and procedures and assuring staff members are trained implementing the policies and procedures.

The patients and services identified in ECP.4.1 through ECP.4.8, when present in the organization, are included in the process. Additional patients and services are included when represented in the general occupational health patient population and services. Examples are employees involved in exercise stress testing, receiving allergy antigen injections, and those undergoing such procedures as sigmoidoscopy.

Measurable Elements of ECP.4

1.   The program's clinical and managerial leaders have identified high-risk patients and services.
2.   A collaborative process was used to develop applicable policies and procedures.
3.   Staff members have received training and use the policies and procedures to guide care.

ECP.4.1.   NASA OH clinics and services have policies and procedures that guide the care of emergency patients.

ECP.4.2   Policies and procedures guide the use of resuscitation services throughout the clinics and services of NASA OH.

Intent of ECP.4.1 through ECP.4.2

Policies and procedures must be tailored to the particular at-risk patient population or high-risk service to be appropriate and effective in reducing the related risk. It is important that the policy and procedure identify how the planning will occur and define the documentation required for the care team to work effectively.

Special qualifications of staff members providing high-risk care are defined. Consideration for special consents, availability and use of specialized equipment, and monitoring of the high-risk care process are addressed.

Published clinical guidelines (i.e. ACLS) are helpful in developing high-risk care policies and procedures and may be incorporated. Monitoring provides the information needed to ensure that the policies and procedures are adequately implemented and followed for all relevant patients and services.

Measurable Elements of ECP.4.1

1.   The care of emergency patients is guided by appropriate policies and procedures.
2.   Patients receive care consistent with the policies and procedures.

Measurable Elements of ECP.4.2

1.   The use of resuscitation services throughout the NASA OH is guided by appropriate policies and procedures.
2.   Resuscitation is provided according to these policies and procedures.

ECP.5   NASA OH assures that clinics and services address medication use and provide for an efficient, organized process that meet patient needs.

ECP.5.1   NASA OH assures that clinics and services address pharmacy or pharmaceutical services, and provide that medication use complies with applicable federal and state laws and regulations.

Intent of ECP.5 and ECP.5.1
Medications are frequently used when treating injury, illness and moderating symptoms. Medication use is an important resource in patient care and must be organized effectively and efficiently throughout the organization.

Applicable laws and regulations are incorporated into the medication program structure. The medication management system used within the organization is reviewed and updated by qualified individuals on a regular basis.

Measurable Elements of ECP.5
1.   Medication use is organized throughout the organization and patient medication needs are met.

Measurable Elements of ECP.5.1
1.   Medication use complies with applicable federal and state laws and regulations.

ECP.5.2   NASA OH assures clinics and services address the need for an appropriate selection of medications for prescribing or ordering, and are well stocked or readily available.

ECP.5.2.1   NASA OH assures that the clinics or services have a method for overseeing the medication formulary and medication use.

ECP.5.2.2   NASA OH assures that the clinics or services have a method for obtaining medications not normally stocked or available.

ECP.5.2.3   NASA OH assures that the clinics or services have a process for obtaining medications when the pharmacy or pharmaceutical supply service is closed.

ECP.5.2.4   NASA OH emergency medications are available, monitored, and secure.

Intent of ECP.5.2 through ECP.5.2.4
The clinic decides which medications are to be made available for prescriptions and administration by the care providers, or in some cases self-administered by employees. This decision is based on the clinic's mission statement, patient needs, and the types of services provided.

Medication selection is a collaborative process that considers patient need and safety as well as cost effectiveness. The program develops a list of all the medications it stocks or that are readily available from outside sources.

In some cases, laws or regulations may determine the medications on the list or the source of those medications. The program has a method, such as a committee, to maintain and monitor this medication list and the use of medications within the organization.

On occasion, medications not stocked or readily available to the clinic are needed. A plan for obtaining and use of these items is developed. Staff members are oriented to the procedure.

When employee emergencies occur, quick access to appropriate emergency medications is critical. The type of emergency drugs and their location are readily identified. Specific cabinets, carts, bags, or boxes can be used for storing emergency medications.

To ensure access to emergency medications when needed, the organization establishes a procedure to prevent abuse, theft, or loss of the medications and to ensure that medications are replaced when used, damaged, or out-of-date.

Measurable Elements of ECP.5.2
1. Medications available for prescribing and ordering are appropriate to the organization's mission, patient needs, and services provided.
2. There is an available list of stocked medications and drugs readily available from outside sources.

Measurable Elements of ECP.5.2.1
1. There is a method for oversight of the medication list or formulary.
2. There is a method for oversight of medication use within the organization.
3. Medications are protected from loss or theft.

Measurable Elements of ECP.5.2.2
1. There is a process to obtain required medications not stocked or normally available to the organization.
2. Staff members understand and can enact the process.

Measurable Elements of ECP.5.2.3
1. There is a process for obtaining medications when the traditional pharmacy supplier is closed.
2. Staff members understand and can enact the process.

Measurable Elements of ECP.5.2.4
1. Emergency medications are available in the organization within a specified time frame to meet emergency patient care needs.
2. Emergency medications are protected from loss or theft.
3. Emergency medications are monitored and replaced in a timely manner after use or when expired or damaged.

ECP.5.3   NASA OH assures that clinics and services define prescribing, ordering, and administration of medications and are guided by policies and procedures.

Intent of ECP.5.3

Safe prescribing, ordering, and administration of medications are guided by clinic policies and procedures. Medical, nursing, and administrative staff members collaborate to develop and monitor the policies and procedures. In circumstances where employees may self-administer medications, there should be a policy and procedure addressing this practice.

Requirements for documentation of medications ordered or prescribed and appropriate use of verbal medication orders are defined. Relevant staff members are trained in correct prescribing, ordering, and medication administration practices. Documentation of patient self-administration of medications is also addressed.

<p align="center">Measurable Elements of ECP.5.3</p>

1. Policies and procedures guide the safe prescribing, ordering, and administration of medications in the organization.
2. Documentation requirements are stated.
3. The use of verbal medication orders is stated.
4. Relevant staff members are trained in correct prescribing, ordering, and administration practices.
5. Policy and procedures guide the practice of patient self-administration of medication while in the care of the organization.

ECP.5.3.1   NASA OH assures that the clinics and services identify those qualified individuals permitted to prescribe or order medications and those permitted to administer medications. Standing medication orders e.g., orders that are carried out without regard to assessment or individualization are discouraged. Standing protocols that can be individualized to the patient are preferred.

Intent of ECP.5.3.1

Selecting a medication to treat an employee requires specific knowledge and experience. Each NASA OH is responsible for identifying those individuals with the requisite: (a) knowledge and licensure, (b) certification, and (c) laws or regulations to prescribe or order medications.

The clinic may place limits on prescribing or ordering by an individual, such as for controlled substances. In emergencies, the program identifies any additional individuals permitted to prescribe or order medications.

The administration of medication requires knowledge, skills and experience. The organization is responsible for identifying those trained and experienced individuals permitted by licensure, certification, law or regulation to administer medications. Specific policy and procedure guide the practice of patient self-administration.

Measurable Elements of ECP.5.3.1

1. Only those permitted by the organization and by relevant licensure, laws and regulations prescribe or order medications.
2. There is a process to place limits, when appropriate, on the prescribing or ordering practices of individuals.
3. Only those permitted by the organization and by relevant licensure, certification, laws, or regulations may administer medications.
4. Policy and procedure guide patient medication self-administration.

ECP.5.3.2   NASA OH assures that the clinics and services have policies and procedures to govern the control of medication samples, the use of any medications brought into the clinic by the patient, and the dispensing of medications from the program.

Intent of ECP.5.3.2
Oversight of the medication use process requires an understanding of the pharmaceutical sources and uses of medications that are not accounted for in the organization's formularies or medication lists.

The organization's role in providing medications to employees needs to be determined. Those who prescribe or order medication should know what medications, if any, are recommended and available, how to obtain them, and if there are any limits or costs.

These medication use practices are guided by clinic policies and procedures to assure patient safety and therapeutic effectiveness.

Measurable Elements of ECP.5.3.2

1. Policies and procedures control the availability and use of medication samples.
2. Policies and procedures govern the dispensing of medications.
3. Policies and procedures are implemented.

ECP.5.4   NASA OH assures that clinics and services provide for medications to be stored, prepared, and dispensed in a safe and clean environment.

Intent of ECP.5.4
Medications are prepared and dispensed in a clean and safe environment that complies with law, regulation, and professional practice standards. In particular, medications are clearly labeled, stored properly, and protected from heat and light when necessary.

Measurable Elements of ECP.5.4

1. Medications are labeled properly.
2. Medications are stored properly.
3. Medications are prepared and dispensed in clean and safe areas.
4. Medications preparation and dispensing adhere to law, regulation, and professional standards of practice.

ECP.5.4.1   NASA OH assures that the clinics and services have policies and procedures providing for appropriately licensed personnel to supervise the storage, preparation, and dispensing of medications.

Intent of ECP.5.4.1

A qualified individual directly supervises the process (e.g. Dispensing Practitioner). The individual is appropriately licensed, certified, and trained. Supervision includes the control of all pharmaceuticals and the safe and accurate dispensing of medication. There is a registry, log, or other mechanism to monitor and account for controlled substances.

Measurable Elements of ECP.5.4.1

1. Medications are accurately dispensed.
2. Controlled substances are accurately accounted for.

ECP.5.4.2   NASA OH assures that the clinics and services provide for medication orders to be reviewed and verified.

Intent of ECP.5.4.2

Nursing staff members review each patient care order for medication. When questions arise, the individual who prescribed or ordered the medication is contacted.

Measurable Elements of ECP.5.4.2

1. A nurse reviews each prescription or order.
2. There is a process to contact the employee who prescribed or ordered the medication when questions arise.

ECP.5.4.3   NASA OH clinics and services have medication management programs that provide a system for recalling medications when necessary.

Intent of ECP.5.4.3

The program has a process for identifying, retrieving, and returning or destroying medications recalled by the manufacturer or supplier. There is a policy or procedure that addresses any use of, or the destruction of medications known to be expired or outdated.

Measurable Elements of ECP.5.4.3

1. There is a medication recall system in place.
2. Policies and procedures address the use of any expired or outdated medications.
3. Policies and procedures address the destruction of expired or outdated medications.
4. Policies and procedures are implemented.

ECP.5.4.4   NASA OH clinics and services have a defined system that assures proper dispensing of medications. Medication administration should adhere to the

five rights: The right drug, in the right dose, given to the right patient, by the right route, at the right time.

Intent of ECP.5.4.4
The organization dispenses medications in the most ready-to-administer form possible to minimize opportunities for error and contamination during distribution and administration. Policy and procedure guide the dispensing of medication for employee self-administration while within the clinic.

Measurable Elements of ECP.5.4.4
1. There is a standardized medication dispensing and distribution system in the organization.
2. Medications are dispensed in a form requiring minimal manipulation.
3. The medication system supports accurate dispensing.
4. The medication system supports timely dispensing.

ECP.5.5   NASA OH clinics and services have a procedure to assure that patients are identified before medications are administered.

ECP.5.5.1   NASA OH clinics and services support efforts to assure the five rights of medication administration. The right dose of the right medication is administered to the right patient, by the right route, and at the right time.

Intent of ECP.5.5 and ECP.5.5.1
The safe administration of medications includes verifying the drug with the prescription or order. Patient identification, dosage, time and frequency of administration are checked with the prescription or order.

Measurable Elements of ECP.5.5
1. Patients are identified before medications are administered.

Measurable Elements of ECP.5.5.1
1. Medications are verified with the prescription.
2. The dosage amounts of the medication are verified with the prescription or order.
3. The routes of administration are verified with the prescription or order.
4. Medications are administered on a timely basis.
5. Medications are administered as prescribed.

ECP.5.6   NASA OH assures that clinics and services provide for the effects of medication treatment to be monitored as a part of quality patient care.

Intent of ECP.5.6

The employee, his or her physician, nurse, and other care providers work together to monitor employees on medications given by the clinic. The purposes of monitoring are to evaluate the effect of medication therapy on the employee's symptoms or illness. Adjustments of dosage or types of medication occur when needed, and patients are monitored for adverse effects.

<center>Measurable Elements of ECP.5.6</center>

1.   The effects of medication given to patients in the clinic are monitored.
2.   The process of monitoring is collaborative among nursing and medical staff.

ECP.5.6.1   NASA OH assures that clinics and services address the need for medications prescribed and administered to be written in the employee's medical record.

Intent of ECP.5.6.1

The medical record of each patient who receives pharmacotherapy contains a list of the medications prescribed or ordered, dosages, and times the medications were administered. Included are medications administered on an as needed basis. Employee self-administration of medication while receiving clinic care is documented according to the clinic's guidelines.

<center>Measurable Elements of ECP.5.6.1</center>

1.   Medications prescribed or ordered are recorded for each patient.
2.   Medication administration is recorded for each dose given.
3.   Medication information is kept within the employee's medical record or inserted into the record at the time of discharge or transfer.
4.   Employee self-administered medications (while in the clinic) are documented in the medical record according to each clinic's procedure.

ECP.5.6.2   NASA OH assures that clinics and services address the need for adverse medication effects to be noted in the employee's medical record.

Intent of ECP.5.6.2

Monitoring medication effects includes observation and documentation of any adverse effects. The program identifies all those adverse effects that are recorded and voluntarily reported, and those adverse outcomes that must be both recorded and reported. The program establishes the mechanism for reporting adverse effects when required, and the timeframe for reporting.

<center>Measurable Elements of ECP.5.6.2</center>

1.   Monitoring includes observing adverse medication effects.
2.   The program has identified those adverse medication effects that are to be reported to the medical director, after being recorded in the employee's medical record.

3. All adverse medication effects are documented in the employee's medical record.
4. Adverse medication effects are reported as required.

ECP.5.6.3 NASA OH assures that the clinics and services address the need for medication errors to be reported through a process, and within a time frame defined by policy and procedure.

Intent of ECP.5.6.3

The clinics and services have a process to identify and report medication errors. The process includes defining a medication error, using a standardized format for reporting, and educating staff regarding the process and importance of reporting. The reporting process is part of the organization's performance improvement program.

A primary focus of the program is to reduce medication errors through understanding the types of errors most likely to occur within their patient populations. Efforts should be made to include understanding likely medication errors in other less familiar employee populations who are treated within the organization. Improvements in medication processes and staff training are used to prevent errors in the future.

Measurable Elements of ECP.5.6.3

1. A medication error is defined in writing.
2. Medication errors are reported in a timely manner using an established process.
3. The program uses medication error reporting information to improve medication use processes.

ECP.6 NASA OH clinics and services provide nutritious snacks that are appropriate for patient needs and consistent with his or her clinical treatment plan.

Intent of ECP.6

Appropriate nutrition is available to meet the dietary needs of each patient. In disease conditions such as diabetes, patients may require nourishment during unexpected delays encountered during a clinic visit. A limited supply of appropriate foodstuff should be maintained for patients who require emergency nutrition.

Measurable Elements of ECP.6

1. Foodstuffs are available to meet unexpected nutrition needs for employees and visitors while receiving care in the organization.

ECP.6.1 NASA OH clinics and services provide an appropriate supply of foodstuff that meets any applicable food preparation, handling, and storage standards and are in compliance with laws, regulations, and current acceptable practices.

Intent of ECP.6.1
The handling of food and/or snacks is monitored to assure safety and compliance with laws, regulations, and current acceptable practices. This process can be simplified by using prepackaged items with an extended shelf life. Expiration dates shall be monitored.

Measurable Elements of 6.1
1.   Food is stored in a manner that reduces risk of contamination and spoilage.
2.   Practices meet applicable laws, regulations, and acceptable practices.

Section I: Employee Care Principles
Coordinating Employee Care (CEC)

CEC.1   Employees have access to the NASA OH services based on identified health
             care needs and the organization's mission and resources.

Intent of CEC.1
Only those employees who meet entry criteria, as defined by the contracted scope of
services for the NASA OH, will enter the program and receive care. At the point of first
contact, employee health care needs are assessed and matched with the occupational
health care program's mission and available resources. To improve access to services, the
program provides information to the service community regarding services, hours of
operation, and how to attain health care.

<div align="center">Measurable Elements of CEC.1</div>

1.   Services provided by the organization are defined based on mission and available
      resources.
2.   Based on assessment, the employee is matched with available and appropriate
      resources.
3.   The screening of employee needs is initiated at the point of first contact.
4.   Employees are admitted to the organization if the required services and care
      settings are available.
5.   Information on services, hours of operation, and processes for obtaining care are
      provided to agencies and referral sources in the community.

CEC.1.1   The NASA OH clinics and services have a process for accepting employees
             for occupational health care.

Intent of CEC.1.1
The process for accepting employees to the occupational health program for care is
standardized through the use of policies and procedures. Staff members responsible for
the registration process are familiar with and follow the standardized procedures. The
policies and procedures address the registration of employees receiving either acute or
nonacute care. The policies and procedures address the management of employees when
base facilities are limited and program resources have been exceeded.

<div align="center">Measurable Elements of CEC.1.1</div>

1.   Policies and procedures are used to standardize the entry process.
2.   Staffs are familiar with the policies and procedures and follow them.
3.   The policies and procedures address the registration of employees.

CEC.1.1.1   NASA OH employees with urgent or emergency needs are given priority for
            assessment and treatment, as defined by the clinics and services.

Intent of CEC.1.1.1

Employees with urgent or emergency needs are assessed and receive care as quickly as possible. Such employees may be assessed by a physician before other patients, and receive priority diagnostic and other services in order to meet their urgent care needs. The program is responsible for establishing triage criteria, training staff members to evaluate employees for urgent care needs, and how to provide priority services.

Measurable Elements of CEC.1.1.1

1. The organization has established criteria to prioritize employees with immediate health care needs.
2. Staff members are trained to implement the criteria.
3. Patients are prioritized and receive care based on the urgency of their needs.

CEC.1.1.2   NASA OH assures that the clinics and services provide for employee preventive healthcare services; needs are prioritized based on the employee's condition at the time of entry to the program.

Intent of CEC.1.1.2
When employees are considered for entry into (see access) the clinic, the screening assessment leads to an understanding of the type of health maintenance, preventive, and problem-oriented care needed by the individual. This information is used to determine the most appropriate setting(s), services, and care providers required to meet the employee's prioritized health care needs. Thus, entry to the program and/or referral to another setting may be required to accomplish these objectives.

Measurable Elements of CEC.1.1.2

1. The screening, according to a risk based assessment leads to an understanding of the types of services needed by the employee.
2. Appropriate setting(s) of care are selected to meet employee care needs.

CEC.1.2   At registration, NASA OH clinics or services provide information to employees and/or decision-makers regarding medical care. Information concerning the proposed care, expected results of that care, and any expected cost for care should be discussed. Employees need to be informed regarding the financial differences they may encounter when receiving care that is work vs. nonwork related.

Intent of CEC.1.2
During the entry process, employees receive sufficient information to make a knowledgeable decision about seeking care. Employees understand their care as proposed, the expected results, and all financial elements. Employees should understand clearly what care is provided at no cost to them, in addition to care referrals for non-work related care which may, or may not, be covered under their own medical insurance policies.

Measurable Elements of CEC.1.2

1. There is a process to provide the employee with information at registration.
2. The process includes information on the proposed care.
3. The process includes information on the expected results of care.
4. The process includes disclosure of financial aspects of care provided (no cost for NASA OH services) and referred (may involve insurance and/or out of pocket expenses).
5. Employees receive sufficient information to make knowledgeable decisions including taking responsibility for determining their own insurance coverage where applicable.

CEC.1.3   NASA OH assures that clinics and services seek to reduce cultural and language, physical and other barriers to health care and delivery of services.

Intent of CEC.1.3

Employees may speak multiple languages or dialects, be culturally diverse, or present other barriers that make the process of entering the occupational health program and receiving care very difficult. The program is familiar with those barriers and has implemented processes to eliminate or reduce these barriers during the entry process. The program also seeks to reduce the impact of these barriers on the delivery of services.

Measurable Elements of CEC.1.3

1. The clinics or services have evaluated their employee populations and identified potential access to care obstacles.
2. A process is developed for overcoming or minimizing barriers to care during the entry process.
3. A process is established to limit the impact of any barriers on the delivery of health care services.
4. These processes are implemented.

CEC.1.4   NASA OH assures that clinics and services have a process for using diagnostic tests that are useful additions to the process of determining employee medical needs. Tests are completed and used as appropriate to determine whether the employee should be treated by the clinic, or referred to an alternate care setting.

Intent of CEC.1.4

Diagnostic testing may also be required in order to determine employee health care needs, understand if the program has the appropriate treatment resources, and establish the appropriate setting for care.

Employee health care needs may have been determined before entering the program, by a physician, or from another treatment program. If employee care needs have not been pre-determined, a triage process, screening assessment, and medical history and physical examination will be conducted.

Measurable Elements of CEC.1.4

1.   There is a process to provide the benefits of diagnostic testing to those responsible for determining the treatment course for employees.
2.   The availability of screening and diagnostic testing is determined by specific criteria.

CEC.2   NASA OH assures that the clinics and services design and carry out processes that provide continuity of work related patient care services within the program. This includes effective coordination among health professionals.

Intent of CEC.2
As employees move through a health care program, multiple departments, services, and clinicians may be involved in providing care. Throughout all phases of care, employee needs are matched with appropriate resources within, and when necessary, outside NASA OH. Using established continuity of care criteria assures that employees receive proper care.

For the patient care process to appear seamless, organization designs and implements a course of action for continuity and coordination of care among physicians, nurses, and other health care providers. The leaders of the various health care settings and services work together to design and implement the procedures. Diagnostic and treatment services are incorporated.

Measurable Elements of CEC.2

1.   The leaders of services and settings design and implement processes that support continuity and coordination of work related health care.
2.   Established criteria or policies determine the appropriateness of transfers outside of the occupational health program.
3.   Care is coordinated between diagnostic and treatment services.
4.   Work related care is coordinated between the occupational health program and other care settings.

CEC.2.1   NASA OH clinics and services assure that there is a qualified individual identified and accountable for care management during all phases of patient care.

Intent of CEC.2.1
An essential component of care continuity is the identification of a qualified staff member who is accountable for each employee's treatment process. This individual bears overall responsibility for the employee's care, or a particular phase of the care. This individual is identified in the employee's medical record, or alternately, in a way that is known to all staff members.

Measurable Elements of CEC.2.1

1.	The individual responsible for the employee's care is identified.
2.	The individual is qualified to assume responsibility for the employee's care.
3.	The individual is readily identified to all providers involved in the treatment plan.

CEC.2.2	NASA OH assures that the clinics and services have a process for providing that employee medical records are available to care providers for the purpose of facilitating information exchange.

Intent of CEC.2.2
The employee's medical record is the primary source for information regarding the care process. Medical, nursing and other patient care notes are available to all the employee's care providers. For this information to be useful and support the continuity of care, it needs to be available and up-to-date. Organization policy identifies those care providers who have access to the employee's medical record to assure confidentiality of employee information.

Measurable Elements of CEC.2.2

1.	Organization policy establishes which care providers have access to the employee's medical record.
2.	The employee medical records are available to identified care providers.
3.	The employee medical records are kept up-to-date to assure the timely exchange of information.

CEC.2.3	NASA OH assures that the clinics and services have a process that provides for information related to the employee's care to be transferred with the employee, when care responsibilities are reassigned.

Intent of CEC.2.3
The employee's medical record contains essential information and should accompany the employee while receiving care in the organization. In the event, however unlikely, of care transfers within or outside of the NASA OH, effective transfer of information is critical to quality of care. Examples of care transfers may include obtaining more acute or specialized services as an extension of a NASA OH visit, however brief, or a simple trip to the radiology room. The goal is to assure that medication, other treatments can continue uninterrupted, and all that provide services can appropriately monitor the status of the employee.

The employee's medical status is summarized, as appropriate, by a care team member at the time of transport. Depending on the situation this may be as simple as a brief verbal exchange (to the radiology technician) or written note (to the emergency team member).

The goal is to assure that any staff person receiving the patient has care information appropriate to the services that will be provided. A written summary includes the reason

for clinic entry, significant findings, diagnoses, procedures performed, medications and other treatments, and the employee's condition at transfer.

Measurable Elements of CEC.2.3

1. The employee's medical record, with a summary of patient care information accompanies the employee to other care settings within or outside the organization.
2. The medical record contains the reason for clinic visit or chief complaint.
3. The medical record contains significant clinical findings.
4. The medical record contains a current list of diagnoses.
5. The medical record contains any clinical procedures performed.
6. The medical record contains any medications given and other treatments performed.
7. The medical record describes the employee's condition when transported, as appropriate to the type of transfer.

CEC.3   NASA OH assures that clinics and services have a process by which employees are appropriately referred for care.

Intent of CEC.3
Referring an employee to a health care professional outside the organization is based on the employee's health status and need for continuing care or services. Referral criteria are utilized.

Measurable Elements of CEC.3

1. There is an organized process guiding patient care referrals.

CEC.3.1   NASA OH assures that clinics and services cooperate with health care practitioners and outside agencies to assure timely and appropriate referrals.

Intent of CEC.3.1
Timely referrals to the practitioner, program, or agency that can best meet the employee's continuing care needs requires planning. The organization maintains familiarity with health care providers in the community in order to understand the types of employees who can be treated and services provided.

Measurable Elements of CEC.3.1

1. The organization becomes familiar with the health care providers in its community.

CEC.3.2   Employees are given understandable follow-up instructions at the time of referral or discharge from the NASA OH.

Intent of CEC.3.2
Clear instructions on where and how to receive continuing care is essential to assure optimal treatment outcomes. The instructions include the name and location of sites for continuing care, any return to NASA OH for follow-up, and directions for obtaining urgent care.

Families are included in the planning process when appropriate. Families are also included when members play a role in the continuing care process e.g., EAP.

The health care program provides instructions to the employee and, as appropriate, family members in a simple, understandable manner. The instructions are provided in writing or in a form most understandable to the employee.

<div align="center">Measurable Elements of CEC.3.2</div>

1.   Follow-up instructions are provided in an understandable form.
2.   The instructions include information regarding return to NASA OH for follow-up care.
3.   The instructions include when and how to obtain urgent care.

Section I: Employee Care Principles
Employee Care Rights (ECR)

ECR.1   The NASA OH is responsible for assuring that clinic processes support
                     employee rights while providing care.

Intent of ECR.1
The medical director has primary responsibility promoting how employees work related
care is managed. The staff needs a knowledge and understanding of employee rights and
agency responsibilities, as established in laws and regulations. The leaders provide
direction to assure that staff members throughout the organization are accountable for
protecting these rights.

Employee rights are accepted as a fundamental element of all patient contacts throughout
the program. Policies and procedures are developed and implemented to assure that all
staff members are aware of patient rights issues and how to appropriately respond when
questions occur. Services provided and population of patients served should be reflected
in the development of these policies. The program uses a collaborative and inclusive
process to develop the policies and procedures, and, when appropriate, includes
employees.

Measurable Elements of ECR.1
1.   Policies and procedures guide and support employee rights in the organization.
2.   Clinic leaders understand patient rights as identified in laws and regulations.
3.   Clinic leaders work to protect and advance patient rights.
4.   Clinic leaders work collaboratively to protect and advance patient rights.
5.   Clinic leaders understand their responsibilities in relation to the community
       served.
6.   Staff members can explain their responsibilities in protecting patient rights.
7.   Staff members are knowledgeable about the policies and procedures.

ECR.1.1   Employees are informed about the services offered by NASA OH and how
                   to access those services.

Intent of ECR.1.1
Employees need complete information on the care and services offered by NASA OH,
including how to access those services. Providing this information is essential to building
open and trusting communication between the care providers and care recipients.

Access to care information helps match the employee's expectations with the ability of
the health care agency to meet those expectations. The organization is prepared to provide
information regarding alternative sources of care, when identified needs are beyond their
scope, mission, and/or capabilities.

Measurable Elements of ECR.1.1

1.   Employees are provided information on care and services provided by the organization.
2.   Employees are provided information on how to access provided services.
3.   Information on alternate sources of care and services is provided when employee needs cannot be met by the Agency.

ECR.1.2   NASA OH patient care is considerate and respectful of the employee's personal values and beliefs.

Intent of ECR.1.2
Each employee brings his or her own set of values and beliefs to the care process. Some values and beliefs are commonly held by many employees and are often cultural and religious in origin. Other values and beliefs may belong to the employee alone. All employees are encouraged to express their beliefs in ways that also respect the viewpoints of others.

Strongly held values and beliefs can shape the care process and how employees respond to care. Thus, each care provider seeks to understand the care and services they provide within the context of the employee's values and beliefs.

Measurable Elements of ECR.1.2

1.   There is a process to assure respect for employee values and beliefs.
2.   Staff members utilize the process and provide care that is respectful and supportive of the employee's values and beliefs.

ECR.1.3   NASA OH assures that clinics and services address the need for care processes that are respectful of the employee's need for privacy.

Intent of ECR.1.3
Employee privacy, especially during clinical procedures and examinations, is an important consideration. Employees may desire privacy from other staff members and other employees. Employee privacy needs should be considered and respected by care providers.

Measurable Elements of ECR.1.3

1.   A employee's need for privacy is respected for all examinations, procedures, and treatments.

ECR.1.4   NASA OH clinics and services take measures to protect employee possessions from theft or loss.

Intent of ECR.1.4
The program clarifies its responsibility, if any, for managing employee possessions. When employees bring personal possessions, including street clothes, the program has a defined process to account for and ensure the items will not be lost or stolen.

Measurable Elements of ECR.1.4

1. The program has determined its level of responsibility for employee's possessions.
2. Employees receive information defining the program's responsibility for managing and protecting personal belongings.
3. Employee possessions are safeguarded according to established procedures when the program assumes partial or full responsibility, or when the employee is unable to assume responsibility.

ECR.1.5 NASA OH employees are protected from physical assault.

Intent of ECR.1.5
NASA OH takes responsibility for protecting employees from physical assault by other employees, and staff members while in their care. These processes are described by the clinics and services.

Measurable Elements of ECR.1.5

1. Individuals without proper identification are immediately challenged.

ECR.1.6 NASA OH assures that clinics and services have processes addressing employee information as confidential and protected from loss or misuse.

Intent of ECR.1.6
Information about the employee is collected and documented in the medical record, or in other forms. This information is important for understanding employee needs, especially when care and services are provided over time.

Employee information is treated with respect and held confidential. The clinic has implemented policies and procedures that define the processes that protect employee information from loss or misuse. Loss of employee information may be experienced through electronic failure, fire, flood, or theft.

Misuse of employee information can occur within clinic staff, staff or employee family members, or others not authorized to have access to the information. The misuse of patient information can result in the employee's loss of dignity and trust and damage can be done to the employee's employment and personal relationships.

Staff members respect employee confidentiality by not posting medical or other confidential information in the open (on the patient's clinic door or at the nursing station) and by not holding patient-related discussions in public places.

Measurable Elements of ECR.1.6
1. The clinic respects patient health and other information as confidential.
2. Policies and procedures designed to prevent the loss of employee information are established and implemented.
3. Policies and procedures to prevent the misuse of patient information are established and implemented.
4. Staff members are aware of the need for employee confidentiality and implementation of procedures.

ECR.2   The NASA OH assures that clinics and services support the right of the employee to participate in the care process. The family of the employee is included in the care process when appropriate e.g., Employee Assistance Program (EAP), based on the overall treatment plan.

Intent of ECR.2
Employees participate in the care process by asking questions about care, making decisions to accept, and even to refuse care. The program supports and promotes employee involvement in all aspects of care. The inclusion of the employee's family system is an important element of care and is provided by the organization as deemed appropriate.

The organization recognizes that employees are also part of a family system outside of the work environment. While the majority of care provided by NASA OH is work oriented and does not involve families, the patient has a right to family involvement as appropriate to the treatment plan.

In the occupational health environment, this standard of care may be met in several ways. Providing take-home patient care instructions, asking about the employee's condition while at home, or by being available for questions from family members, are examples. In addition, there may be times when a brief telephone interview with a family member can assist with the gathering of clinical data used for treatment plan development.

Related policies and procedures are developed to assure protection of these rights. Management, clinical staff, and others participate in developing such policies and procedures. All staff members receive training regarding the policies and procedures and understand their roles in the support of patient and family rights to participate in the care process.

Measurable Elements of ECR.2
1. Policies and procedures are developed that promote and support employee participation in care processes.
2. Family involvement in the patient care process is defined (as appropriate) to the mission of the organization and services provided, and includes limits or restrictions that may apply.

3.   The development of the policies and procedures is a collaborative effort and includes management and clinical staff.
4.   Staff members are knowledgeable about and understand policies and procedures describing their role in assuring employee participation in care processes.

ECR.2.1   NASA OH assures that clinics and services define how employees are informed as to how they will be told of medical conditions and treatments, and how they can participate in care decisions, to the extent they wish to participate.

Intent of ECR.2.1
For employees to participate in care decisions, basic information about the medical condition and treatment plan is required. In certain instances, treatments require the employee to give formal consent and should, therefore, be informed. Assessment findings, diagnoses, care recommendations, and prognoses are provided to the employee, and family if appropriate. While some employees may not wish to personally participate in the decisions regarding their care, they are given the opportunity and their choice is documented.

Measurable Elements of ECR.2.1
1.   Employees understand how and when they will be told of medical conditions and diagnoses.
2.   Employees understand how and when they will be told of recommended treatments and expected results.
3.   Employees understand the process of giving informed consent, when appropriate.

ECR.2.2   NASA OH assures that the clinics or services inform employees about their rights and responsibilities related to refusing or discontinuing treatment.

Intent of ECR.2.2
An employee may decide not to proceed with the planned care or treatment, or to discontinue care or treatment after it has been initiated. The clinic informs the employee about potential outcomes of discontinuation of treatment and care alternatives, if any. Employees understand their right to make these decisions, and what consequences could result from these decisions, and any responsibilities related to such decisions.

Measurable Elements of ECR.2.2
1.   The clinic informs employees about their rights to refuse or discontinue treatment.
2.   The clinic informs employees about the consequences of their decisions.
3.   The clinic informs employees about their responsibilities related to such decisions.
4.   The clinic informs employees about available care and treatment alternatives.

ECR.2.3   NASA OH assures that the clinics or services have processes established to assess and manage pain appropriately.

Intent of ECR.2.3
The employee has the right to appropriate assessment and management of acute pain. The clinics or services have processes to identify patients who are experiencing pain during acute care assessments. Pain management education is provided for patients in the context of their personal, cultural, and religious beliefs. Health care providers are educated about the pain management process and its importance to effective treatment.

Measurable Elements of ECR.2.3

1. The organization respects and supports the rights of employees to appropriate assessment and management of pain related to occupational health care.
2. The clinic identifies employees who are experiencing pain during the acute care assessment process.
3. The clinic communicates with and provides education for employees about pain and pain management.
4. Employee education and the pain management process reflect consideration of the employee's values, beliefs, and culture.
5. OH providers are educated regarding the assessment and management of pain.

ECR.3   NASA OH clinics and services assure that employees are informed about the process to receive and act on complaints, conflicts, and differences of opinion about patient care, and the employee's right to participate in these processes.

Intent of ECR.3
Employees have a right to voice complaints about their care and to have those complaints reviewed, and, when possible, resolved. These dilemmas may arise around issues of care access, treatment, or discharge.

The clinic should establish processes for seeking resolution of such dilemmas and complaints. Policies and procedures identify those staff members who need to be involved in the process and define how the employee participates.

Measurable Elements of ECR.3

1. Employees are aware of their right to voice a complaint and the process to do so.
2. Complaints are reviewed according to the identified mechanism.
3. Dilemmas that may arise during the care process are reviewed according to established procedures.
4. Policies and procedures identify participants in the process.
5. Policies and procedures identify how the employee participates.

ECR.4   NASA OH clinics and services assure that staff members are educated about their roles in the identification of employee values and beliefs and the protection of patient rights.

Intent of ECR.4
The clinic educates all staff members about the protection of employee rights in the context of cultural and religious differences. The education process recognizes that staff members may hold values and beliefs that are different from that of the employees in their care. Staff members receive education and training in the identification of employee values and beliefs and how they can respect those values and beliefs in the care process.

Measurable Elements of ECR.4
1.   Staff members understand their role in identifying employee values and beliefs and how such values and beliefs can be respected in the care process.
2.   Staff members understand their role in protecting patient rights.

ECR.5   NASA OH employees are given information about their rights in a manner they can understand, according to a procedure defined by the clinic. If the organization elects to meet this standard by a public posting of a patient's rights, a copy should be provided to the individual on request.

Intent of ECR.5
Entering a health care program can be frightening and confusing for employees, making it difficult for them to understand and act on their rights. The statement regarding a patient's rights may be posted in each patient care facility or alternately provided to each employee upon program entry.

The patient rights statement is appropriate to the employee's age, understanding, and language. When written communication is not effective or appropriate, the employees are informed of their rights in a manner they can understand.

Measurable Elements of ECR.5
1.   Each employee receives information about his or her rights in writing, by public posting or individual copy on request.
2.   The clinic has a process to inform employees of their rights when written communication is not effective or appropriate.

ECR.6   NASA OH assures that patient informed consent is obtained through a
                process defined by the clinic, and carried out by trained staff members.

Intent of ECR.6
Employees are involved primarily in their care decisions by granting informed consent.
To offer consent, an employee must be informed of factors related to the planned care.
Knowledge and understanding is required for an informed decision.

Informed consent may be obtained at several points in the care process. Informed consent
can be obtained as the employee enters the program and again before certain procedures
or treatments are prescribed. Policies and procedures clearly define the consent process
with laws and regulations incorporated.

Employees are informed as to what tests, procedures, and treatments require consent and
the description of how consent is given. Methods of giving consent include signing a
consent form, verbally, or through some other mechanism.

Measurable Elements of ECR.6
1.   The clinic has a clearly defined process for obtaining consent and it is described in
      policies and procedures.
2.   Designated staff members are trained to implement the policies and procedures.
3.   Employees give informed consent consistent with these policies and procedures.

ECR.6.1   NASA OH assures that clinic patients receive adequate information about
                their injuries or illnesses, treatment proposed, and care providers so that care
                decisions can be made. The processes are defined by the clinics and services.

Intent of ECR.6.1
Staff members clearly explain any proposed treatments or procedures to the employee
and, when appropriate, the family. The information provided should include the
employee's condition, proposed treatment with potential benefits and drawbacks, the
likelihood of success, possible alternatives, possible problems related to recovery, and
consequences of non-treatment.

Measurable Elements of ECR.6.1
1.   Employees are informed of their condition.
2.   Employees are informed about proposed treatment.
3.   Employees are informed about potential benefits and drawbacks to the proposed
      treatment.
4.   Employees are informed about possible alternatives to the proposed treatment.
5.   Employees are informed about the likelihood of successful treatment.
6.   Employees are informed about possible problems related to recovery.
7.   Employees are informed about consequences of refusing treatment.

8.   Employees know the identity of the physician and other practitioners responsible for their care.
9.   When treatments or procedures are planned, employees know who is authorized to perform the procedure or treatment.

ECR.6.1.1   NASA OH assures that clinics or services have a process addressing the need for staff members to provide patient care information in a manner and language understood by those that are making the care decisions and providing informed consent.

Intent of ECR.6.1.1
For care decisions to be based on all the information identified in ECR.6.1, the information must be provided in a manner and language that are clear and understandable.

Measurable Elements of ECR.6.1.1
1.   Employees receive clear information regarding their care in a comprehensible way.

ECR.6.2   NASA OH assures that the clinics or services establish a process, within the context of existing law and culture, for when others can grant consent for an employee's care.

ECR.6.2.1   When someone other than the NASA OH patient gives informed consent for treatment, that individual is noted in the employee's medical record.

Intent of ECR.6.2 and ECR.6.2.1
Employee care sometimes requires that persons other than (or in addition to) the employee provide informed consent for medical care. Such persons should be involved, and informed when granted authority in decisions about patient care.

Measurable Elements of ECR.6.2
1.   The clinic has a process for when persons other than the employee can grant informed consent.
2.   The consent process respects law, culture, and custom.

Measurable Elements of ECR.6.2.1
1.   Individuals, other than the employee, granting consent are noted in the employee's medical record.

ECR6.2.2   NASA OH assures that lists of those categories or types of treatments and procedures that require specific informed consent are defined.

Intent of ECR.6.2.2
Not all treatments and procedures within the occupational health program require consent. The program identifies those high-risk, problem-prone, or other procedures and treatments for which consent must be obtained.

The clinic describes these separate procedures and treatments and educates staff members to assure that the consenting process is consistent. In defining procedures that require special consent; the program determines the level of detail needed on the list. Each procedure and treatment can be separately itemized, or named by categories or types.

<p align="center">Measurable Elements of ECR.6.3.2</p>

1.   The clinic has a list of those surgical procedures and invasive treatments that require consent.

Section I: Employee Care Principles
Employee Healthcare Education (EDU)

EDU.1   NASA OH assures that preventive education efforts support employee
              participation in care decisions and care processes in the clinics and services.

Intent of EDU.1
Occupational health care programs educate employees for the purpose of preventive
education. Clinics and services build this education into care processes based upon its
mission, services provided, and Center patient population. Risk based health education is
planned to assure that every employee is offered adequate and appropriate learning
resources.

The clinics or services choose how to organize risk based educational resources in an
efficient and effective manner. Responsibility for education may be assigned through a
coordinator, committees, creation of an education service, or simply by working with all
staff members to provide education in a coordinated manner. Such organization is
determined on the occupational exposure and the associated workplace issues and
ergonomics.

Measurable Elements of EDU.1
1.   The Center has a plan for risk based health education that is consistent with its
      mission, services, and patient population.
2.   There is an appropriate structure or mechanism for preventive education
      throughout the organization.
3.   Education resources are organized in an efficient and effective manner.

EDU.1.1   Each NASA OH employee should have a preventive healthcare needs
              assessment that is documented in the medical record.

Intent of EDU.1.1
Occupational health programs are responsible for procedures that describe their employee
education programs. Employee education is focused on the specific knowledge and skills
that the employee will need in order to make informed care decisions and participate
actively in the care plan. In order to identify and understand the individual's educational
and risk-based health education needs, there should be an assessment process for this
purpose.

Knowledge and skills deficits are identified and used in the education plan. The learning
needs assessment process also includes those patient variables that determine the
readiness of the employee and current capacity for learning. Variables that require
consideration are employee beliefs and values, literacy, formal educational level, and
language barriers. Emotional barriers and motivation, physical and cognitive limitations,
and the employee's willingness to receive information are also important.

Measurable Elements of EDU.1.1
1.   The preventive healthcare education needs of employees are assessed.
2.   The employee is evaluated concerning probable occupational exposures.
3.   Risk based health education is included in the evaluation as it contributes to the overall quality of the employee's care.

EDU.1.2   Each NASA OH employee receives education designed to help them give informed consent, participate in care processes, and understand any financial implications of care choices. The latter is particularly important when care is related to nonwork related health care needs.

Intent of EDU.1.2
Staff members provide information and education to employees at appropriate times in the care process. Clinics and services define these processes.

Measurable Elements of EDU.1.2
1.   Employees learn about participation in care decisions.
2.   Employees learn about participation in the care process.
3.   Employees learn about any financial implications of care decisions.

EDU.2   NASA OH assures that education and training are provided by clinics and services to help meet the ongoing health needs of the patients they serve.

EDU.2.1   NASA OH assures clinic cooperation with available community resources, to provide health promotion and disease prevention education.

Intent of EDU.2 and EDU.2.1
Employees frequently require follow-up care to meet ongoing health needs and achieve health goals. Information provided by the care organization may include health goals and when appropriate, information on coping with disease or disability. Clinics identify health promotion activities relative to its population. Ongoing health promotion activities support a safe and productive work place environment.

The care programs identify educational and training resources available in the community. In particular, community programs that support health promotion and disease prevention education are identified and when possible, continuing relationships are established.

Measurable Element of EDU.2
1.   Employees receive education and training to meet their ongoing health needs and achieve their health goals.
2.   Clinics identify and promote a minimum of one new health promotion campaign quarterly.

Measurable Elements of EDU.2.1

1.   Relationships with community resources that support continuing health promotion and disease prevention education are identified and established.
2.   Employees are referred to these sources when appropriate.

EDU.3   NASA OH assures that employee education practiced in the clinics or services include topics as appropriate to the treatment plans. Safe use of medications, medical equipment, diet, and return to work methods should be considered.

Intent of EDU.3

The clinic uses standardized materials and processes in educating employees. The following topics are identified as familiar to many patient care plans and are important to include in the plans for employee education. These include the safe and effective use of medical equipment and safe and effective use of medications, including potential side effects. Also, diet and nutrition, potential interactions between medications and food, and techniques for return to work goals.

Measurable Elements of EDU.3

1.   When appropriate, employees are educated about the safe and effective use of medications and potential side effects of medications.
2.   When appropriate, employees are educated about the safe and effective use of medical equipment.
3.   When appropriate, employees are educated about the prevention of interactions between medications and food.
4.   When appropriate, employees are educated about appropriate diet and nutrition.
5.   When appropriate, employees are educated about return to work issues.

EDU.4   NASA OH clinics and services assure that education methods consider employee values and preferences and allow sufficient interaction among the employee, family, and staff members for learning to occur.

Intent of EDU.4

Effective learning occurs when attention is given to the development of methods used to educate employees. Developing an understanding of the patient helps the clinic select appropriate education methods and responsive instructors. Employee preferences, values, and beliefs are considered.

Measurable Elements of EDU.4

1.   Education methods are selected on the basis of employee values and preferences.
2.   Interactions between staff members and employees confirm that the information was understood.

EDU.4.1   NASA OH assures that the clinics and services teach employees in a format and language that they understand.

Intent of EDU.4.1
Particular attention is given to the format and language used in providing patient education. Employees respond differently to spoken instructions, printed materials, videotapes, demonstrations, and so on. It is very important to use a mutually understood language in a teaching and learning situation.

Measurable Elements of EDU.4.1
1.   The employee is taught in a format they understand.
2.   The employee is taught in a language they understand.

EDU.4.2   NASA OH assures that clinic health professionals caring for the employee collaborate to provide adequate and effective education.

EDU.4.2.1   NASA OH assures that these professionals have the knowledge and skills required for informing and teaching effectively.

Intent of EDU.4.2 and EDU.4.2.1
When health care professionals understand one another's contributions to employee education, they can collaborate more effectively. The need for collaboration is based on the employee's needs and may not always be necessary or appropriate.

Knowledge of the subject matter, willingness to teach, and ability to communicate effectively are important considerations in providing valuable education.

Measurable Element of EDU.4.2
1.   Employee education is provided collaboratively, when appropriate.

Measurable Element of EDU.4.2.1
1.   Those who provide employee education have the skills and aptitudes necessary.

Section II

NASA Occupational Health Medical Quality Assurance Program Management-Directed Principles

Section II: Management-Directed Principles
Facility and Safety Management

FSM.1   NASA OH assures that the clinics and services are compliant with relevant laws, regulations, and facility inspection requirements.

FSM.1.1   NASA OH plans and budgets for upgrading or replacing essential systems, buildings, or components.

Intent of FSM.1 and FSM.1.1

Laws, regulations, and other requirements related to the facility are considered first. Such requirements may differ depending on the age and location of the facility and other factors. Many building construction and fire safety codes (such as for sprinkler systems) apply only to buildings newly constructed.

The leadership of the organization, including governance and senior management, is responsible for being knowledgeable about national and local laws, regulations, and other requirements that apply to the NASA OH's facilities. They are also responsible for implementation of applicable requirements or approved alternative requirements regarding the facilities.

Leadership is responsible for planning and budgeting for the necessary upgrading or replacement of facilities, as identified by monitoring data, or to meet applicable federal requirements. Progress toward meeting the plans should be demonstrated.

If NASA OH is cited for failure to meet requirements, the leaders take responsibility for planning to meet the requirements within the prescribed time frame, and within the scope of their respective governmental contractual obligations. If the repairs are beyond the scope of their contractual agreements, the leaders take responsibility for notifying the appropriate officials.

Measurable Elements of FSM.1
1.   NASA OH leaders know what laws, regulations, and other requirements apply to their Center.
2.   Agency leaders implement the applicable requirements or approved alternatives.
3.   Leadership assures that the organization meets the conditions of facility inspection reports or citations.

Measurable Elements of FSM.1.1
1.   NASA OH leaders have facility plans and budgets designed to meet applicable laws, regulations, and other requirements.
2.   Upgrades or systems replacements are considered in the agency plans.
3.   The consideration includes plans and budgets for buildings or components needed for the continued operation of safe and functional facilities (as contractually appropriate).

FSM.2   NASA OH assures the planning and implementation of a program designed to manage the physical environment.

FSM.2.1   NASA OH assures inspection of patient care buildings for fire safety and has a plan to reduce evident risks and provide a safe physical facility for patients and staff.

Intent of FSM.2 and FSM.2.1
Organization leaders effectively use available resources in managing a safe and efficient facility. Prevention and planning are essential to the creation of a secure and supportive patient care facility. To plan effectively, the organization must be aware of all the risks present in the facility. Goals are to prevent accidents and injuries; maintain safe and secure conditions for patients and staff; and reduce and control risks and potential hazards.

These objectives can be accomplished by comprehensively inspecting the facility, noting everything from sharp or broken furniture that could injure to locations where there is no escape from fire. These periodic inspections are documented and used by the organization to plan and carry out improvements and to budget for longer-term facility upgrading or replacement.

By understanding the risks present in the NASA OH physical facility, the organization can develop a proactive plan to reduce those risks for patients and staff visitors. This plan includes safety, security, and hazardous materials.

Measurable Elements of FSM.2
1.   The organization has a program to monitor the physical facility.
2.   The program is effective in preventing injury and maintaining safe conditions for patients, staff, and visitors.
3.   The program includes safety, security, and hazardous materials.
4.   The organization leaders use resources effectively to provide a safe and efficient facility.

Measurable Elements of FSM.2.1
1.   The organization has a current, accurate record of the inspection of its physical facilities.
2.   The organization has a plan to reduce evident risks based on inspection outcomes.

FSM.3   NASA OH plans and implements a program to assure that all occupants are safe from fire, smoke, or other emergencies in the facility.

FSM.3.1   The NASA OH plan includes prevention, early detection, suppression, abatement, and safe exit from the facility in response to fires and non-fire emergencies.

FSM.3.2   The organization assures the occurrence and documentation of the regular testing of its fire and smoke safety plan, including any devices related to early detection and suppression.

Intent of FSM.3 through FSM.3.2
Fire is an ever-present risk in the delivery of health care. Thus, every occupational medicine clinic needs to plan how it will keep its occupants safe in case of fire or smoke.

Such a plan should address prevention of fires through the reduction of risks, such as safe storage and handling of potentially flammable materials; hazards related to any construction in or adjacent to patient-occupied buildings; and safe and unobstructed means of exit in the event of a fire.

Early warning and detection systems are important such as fire patrols, smoke detectors, or fire alarms; and suppression mechanisms such as extinguishers, chemical suppressants, or sprinkler systems.

These plans, when enacted, give patients and staff adequate time to safely exit the facility in the event of fire or smoke. These plans are applicable no matter what the age, size, or construction of the facility. However, the actions should be specific to the types of facilities, e.g., a small, one-level brick facility will use different methods than a clinic in a large, multi-level facility.

The organization's fire safety plan identifies the frequency of inspecting, testing, and maintaining fire protection and safety systems, consistent with code requirements; the process for testing, at least once per year, the plan for safe evacuation of the facility in the event of a fire or smoke; the necessary education of personnel to effectively protect and evacuate patients when an emergency occurs; and the participation of staff members in at least one emergency preparedness test per year.

All inspections, testing, and maintenance events are documented.

<div align="center">Measurable Element of FSM.3</div>

1.   There is a program in place to assure that all occupants of the NASA OH facilities are safe from fire, smoke, or other non-fire emergencies.

<div align="center">Measurable Elements of FSM.3.1</div>

1.   The program includes the reduction of fire risks.
2.   The program includes the assessment of fire risks when construction is present in or adjacent to the facility.
3.   The program includes the early detection of fire and smoke.
4.   The program includes the abatement of fire and containment of smoke.
5.   The program includes safe exit from the facility when fire and non-fire emergencies occur.

Measurable Elements of FSM.3.2

1. Fire detection and abatement systems are inspected, tested, and maintained at a frequency determined by the organization.
2. The fire and smoke safety evacuation plan is tested at least once a year.
3. Staff members are trained to participate in the fire and smoke safety plan.
4. Staff members participate in at least one emergency preparedness test per year.
5. Inspection, testing, and maintenance of equipment and systems are documented.

FSM.3.3   NASA OH assures that clinics and services develop and implement a plan to limit smoking at the clinic site.

Intent of FSM.3.3
The organization develops and implements a policy to eliminate smoking that applies to all patients, staff and visitors, eliminating smoking in the health program's facilities.

Measurable Elements of FSM.3.3

1. A policy and plan has been implemented to prohibit smoking in the facilities.
2. The plan applies to patients and staff.
3. There are no exceptions to the plan.

FSM.3.4   NASA OH supports clinics in establishing emergency processes to protect facility occupants in the event of water and/or electrical system disruption, contamination, or failure.

FSM.3.5   NASA OH supports clinics in testing its emergency water and electrical systems (including batteries) on a regular basis, appropriate to the system and documents the results.

Intent of FSM.3.4 and FSM.3.5
Occupational health programs have different medical equipment and utility system needs based on their mission, patient needs, and resources. Regardless of the type of system and level of resources, healthcare programs have a responsibility to protect patients and staff members in emergencies such as system failure, interruption, or contamination.

To prepare for such emergencies, the organization identifies the equipment, systems, and locations that pose the highest risk to patients and staff members. Examples include identification of needs for illumination and refrigeration. The risks of utility system failures in these areas are assessed and minimized. Plans are made for emergency power (including battery back up) and clean water sources for these areas. The availability and reliability of emergency sources of power and water are tested and the results are documented.

Measurable Elements of FSM.3.4

1. The organization has identified the areas and services at greatest risk when power fails or water is contaminated or interrupted.
2. The organization seeks to reduce the risks of such events.
3. The organization plans alternate sources of power and water for emergencies.

Measurable Element of FSM.3.5

1. The organization regularly tests alternate sources of water and electricity.

FSM.4   NASA OH assures development of a plan to respond to likely community emergencies, epidemics, and natural or other disasters.

FSM.4.1   NASA OH has tested responses to emergencies, epidemics, and disasters.

FSM.4.2   NASA OH clinics and services have access to any medical supplies, communication equipment, and other materials to support adequate responses to emergencies, epidemics, and disasters.

Intent of FSM.4 through FSM.4.2

Community emergencies, epidemics, and disasters may directly involve the health care organization, such as damage to patient care areas as a result of a natural disaster, or a flu epidemic that keeps staff from coming to work.

To assure effective responsiveness during times of emergency, the organization develops and tests a response plan. The plan provides processes for alternate care sites if needed and alternate sources of medical supplies, communications equipment, and other materials.

Measurable Element of FSM.4

1. The organization has a plan for response to potential community emergencies, epidemics, and natural or other disasters

Measurable Elements of FSM.4.1

1. The response plan is tested on a regular basis.

Measurable Elements of FSM.4.2

1. Medical supplies are available during emergencies.
2. Communication equipment is available during emergencies.
3. Other essential materials are available as planned.

FSM.5   NASA OH clinics and services plan for the inventory, handling, storage, and use of hazardous materials including the control and disposal of hazardous materials and waste.

Intent of FSM.5

Hazardous materials and wastes are identified by the organization, and safely controlled according to plan. Such materials and wastes include lab and radiology chemicals, and other regulated medical and infectious wastes. The plan provide processes for handling, storage, and use of hazardous materials; the inventory of hazardous materials and wastes; reporting and investigation of spills, exposures, and other incidents; proper disposal of hazardous wastes; proper protective equipment and procedures used during spills, or exposures; documentation, including any permits, licenses, or other regulatory requirements; and proper labeling of hazardous materials and wastes.

Measurable Elements of FSM.5

1.   The organization identifies hazardous materials and wastes.
2.   Hazardous materials and wastes are managed according to a plan.
3.   The plan includes safe handling, storage, and use of hazardous material.
4.   The plan includes reporting and investigation of spills, exposures, and other incidents.
5.   The plan includes the proper disposal of hazardous wastes.
6.   The plan includes the proper protective equipment and procedures during use, spill, or exposure.
7.   The plan identifies documentation requirements including any permits, licenses, or other regulatory requirements.
8.   The plan includes labeling of hazardous materials and wastes.
9.   The plan is implemented and followed.

FSM.6   NASA OH assures that one or more qualified individuals oversee the planning and implementation of the program to provide safe and effective physical facilities.

FSM.6.1   NASA OH assures that a monitoring program provides data on incidents, injuries, and other events that support planning and further risk reduction.

FSM.6.2   NASA OH assures that management of this program is consistent and continuous.

Intent of FSM.6 through FSM.6.2

A facility management and safety program in a health care setting requires the assignment of one or more individuals to provide leadership and oversight. Depending on the size of the organization, one individual may be assigned part-time. In a larger agency, several specially trained individuals may be assigned. Whatever the assignment, all aspects of the program must be managed effectively and in a consistent and continuous manner.

Program oversight includes planning all aspects of the program, implementation, education of personnel, testing and monitoring, and periodic review and revision.

When appropriate to the organization's size and complexity, a safety committee may be formed and given responsibility for overseeing the program and assuring continuity.

Monitoring all aspects of the safety program provides valuable data for improvement and helps to further reduce risks in the organization.

Measurable Elements of FSM.6
1.   Program oversight and direction are assigned to one or more individuals.
2.   The individual(s) is qualified by experience or training.
3.   The individual(s) plans and implements the program.

Measurable Elements of FSM.6.1
1.   There is a program to monitor all aspects of the facility management and safety program.
2.   Monitoring data are used to improve the program.

Measurable Element of FSM.6.2
1.   Oversight of the program provides consistent management and continuity over time.

FSM.7   NASA OH assures planning and implementation of a program for inspecting, testing, and maintaining medical equipment and documenting the results.

FSM.7.1   NASA OH assures the collection of monitoring data for the medical equipment management program. These data are used to plan the organization's long-term needs for upgrading or replacing equipment.

Intent of FSM.7 and FSM.7.1
To assure that medical equipment is available for use and functioning properly, the occupational health program inventories, regularly inspects, tests, and provides preventive maintenance of medical equipment, as appropriate to use.

Qualified individuals provide these services. Equipment is inspected and tested when new, then on an ongoing basis, as appropriate to the age and use of the equipment or based on manufacturer instructions. Inspections, testing results, and any maintenance activities are documented. This helps assure the continuity of the maintenance process and contributes to the process of capital planning for replacements, upgrades, and other changes.

Measurable Elements of FSM.7
1.   Medical equipment is managed according to plan, throughout the organization.
2.   There is an inventory of all medical equipment.
3.   Medical equipment is regularly inspected.

4.   Medical equipment is tested when new and as appropriate thereafter.
5.   There is a preventive maintenance program for medical equipment.
6.   Qualified individuals provide these services.

<div align="center">Measurable Elements of FSM.7.1</div>

1.   Monitoring data are collected and documented for the medical equipment management program.
2.   Monitoring data are used for purposes of planning and improvement.

FSM.8   NASA OH assures that electrical, water, waste, ventilation, medical gas, and other key systems are regularly inspected, maintained, and when appropriate, improved.

Intent of FSM.8
The effective and efficient operation of utility and other key systems in the organization are essential for patient and staff safety and for meeting patient care needs.

<div align="center">Measurable Elements of FSM.8</div>

1.   Utility systems are regularly inspected.
2.   Utility systems are regularly maintained.

FSM.9   NASA OH assures that all clinic and service staff members are educated and trained about their roles in providing a safe and effective patient care facility.

FSM.9.1   Staff members are trained and knowledgeable about their roles in the NASA OH plans for fire safety, security, hazardous materials, and emergencies.

FSM.9.2   NASA OH clinic and services staff members are trained to operate and maintain medical equipment and utility systems.

FSM.9.3   NASA OH clinics and services periodically test staff knowledge through demonstration, mock events, and other suitable methods. This testing is documented.

Intent of FSM.9 through FSM.9.3
Staff members are the primary source of contact with patients. Thus, they need to be educated and trained to carry out their roles in identifying and reducing risks, protecting others and themselves, and creating a safe and secure facility.

Each health care agency must decide the type and level of training required for staff members, carrying out and documenting a program for this training and education. The program can include group instruction, printed educational materials, a component of new staff orientation, or some other mechanism that meets the needs of the organization. The program includes instruction on the processes for reporting potential risks, incidents and

injuries, and handling hazardous and other materials that pose risk to themselves and others.

Staff members who are responsible for operating or maintaining medical equipment should receive special training. The training can be from the organization, the manufacturer of the equipment, or some other knowledgeable source.

The organization establishes a program designed to periodically test personnel knowledge on emergency procedures including fire safety, response to hazards or hazardous spills, and the use of medical equipment that poses potential risk to patients and staff members.

Knowledge can be tested through a variety of means such as individual or group demonstrations, the staging of mock events, the use of written or computer tests, or other ways suitable to the knowledge being tested. The program documents who was tested and the results of the testing.

Measurable Element of FSM.9

1.   For each component of the NASA OH facility management and safety program, there is planned education to assure that staff members can effectively carry out their responsibilities.

Measurable Elements of FSM.9.1

1.   Staff members can describe and/or demonstrate their role in response to a fire.
2.   Staff members can describe and/or demonstrate actions to eliminate, minimize, and report safety, security, and other risks.
3.   Staff members can describe and/or demonstrate precautions, procedures, and participation in the storage, handling, and disposal of hazardous wastes and materials.
4.   Staff members can describe and/or demonstrate procedures and their roles in internal and community emergencies and disasters.

Measurable Elements of FSM.9.2

1.   Staff members are trained to properly operate medical equipment.
2.   Staff members are trained to properly maintain medical equipment.

Measurable Elements of FSM.9.3

1.   The knowledge of staff members is tested regarding their roles in maintaining a safe and effective facility.
2.   The training and testing of personnel are documented including who was trained and tested, and the results.

Section II: Management-Directed Principles
Governance (GOV)

GOV.1   NASA OH governance responsibilities and accountabilities are described in bylaws, policies and procedures, or similar documents that guide how they are to be carried out.

Intent of GOV.1

Health care organizations have a governing body responsible for overseeing the operation of the program and are accountable for assuring the provision of quality health care services to the community, or to the population, that seeks care. The responsibilities and accountabilities of this entity are described in a document that identifies how they are to be carried out.

The organization's governance and management structure is presented in an organizational chart or other document. Lines of authority and accountability are delineated. The individuals represented on the chart may be identified by title or name.

Measurable Elements of GOV.1

1. The organization's governance structure is defined in written documents.
2. Governance responsibilities and accountabilities are described in the documents.
3. There is an organizational chart or program document that identifies leadership relationships.
4. Those responsible for governing and managing are identified in the document by title or name.

GOV.1.1   Those responsible for governance approve the NASA OH mission statement.

GOV.1.2   Those responsible for governance approve the policies and plan that operate the NASA OH.

GOV.1.3   Those responsible for governance appoint or approve the program manager.

GOV.1.4   Those responsible for governance of NASA OH support and promote quality management and improvement efforts.

GOV.1.5   Those responsible for governance collaborate with NASA OH managers and leaders.

Intent of GOV.1 1through GOV.1.5
Neither the location nor specific titles of those in the administrative structure are important. Rather, the organization should focus on the responsibilities that must be carried out. The organization should have clear leadership, operate efficiently, and provide quality health care services.

These responsibilities are summarized as follows: Approval of the program's mission, various strategic and management plans, and policies and procedures required for daily operation. Budgetary responsibilities assure that the organization has adequate resources to operate, while supporting and promoting efforts aimed at quality improvement. Senior management for the organization are appointed and/or approved by the governing entity.

Measurable Element of GOV.1.1
1. The NASA OH mission is approved by the governing entity.

Measurable Element of GOV.1.2
1. Those responsible for governance approve the NASA OH strategic and management plans, and operating policies and procedures.

Measurable Element of GOV.1.3
1. The program manager is approved by those responsible for governance.

Measurable Element of GOV.1.4
1. Those responsible for governance show support for and promotion of quality management and improvement efforts.

Measurable Element of GOV.1.5
1. Those responsible for governance use processes that provide communication and cooperation between governance and clinic management.

GOV.2 The program manager is responsible for operating NASA OH and for assuring compliance with applicable laws and regulations.

Intent of GOV.2
Effective leadership is essential for the health care program's efficient operation and fulfillment of its mission. The medical director is responsible for the overall day–to-day operation of the NASA OH. Responsibilities include the procurement and inventory of essential supplies, maintenance of the physical facility, financial management, quality management, and more. The individual selected or appointed by the governing body to carry out these functions has the education and experience to do so.

The medical director cooperates with other clinical and managerial leaders to define the organization's mission, and to plan the policies, procedures, and clinical services related

to that mission. Once approved by the program manager, the medical director is responsible for the implementation of all policies.

The medical director is also responsible for the organization's compliance with applicable laws and regulations, response to any reports from inspecting and regulatory agencies, and establishment of processes to manage and control human, financial, and other resources.

<div align="center">Measurable Elements of GOV.2</div>

1.   The medical director manages the day-to-day operation of the occupational health program.
2.   The medical director has the education and experience to carry out his or her responsibilities.
3.   The medical director recommends policies to the program manager.
4.   The medical director carries out approved policies.
5.   The medical director assures compliance with applicable laws and regulations.
6.   The medical director responds to any reports from inspecting and regulatory agencies.

GOV.3   The medical director identifies and plans for the types of services required to meet the needs of patients served by NASA OH.

Intent of GOV.3
Patient care services are planned and designed to respond to the needs of the patient population. Organization plans describe the care and services to be provided and that are consistent with its mission. The leaders of the various clinics and services of NASA OH determine what diagnostic, therapeutic, rehabilitative, and other services are essential to the community. The medical director also determines the scope and intensity of the various services to be provided by the organization either directly or indirectly.

<div align="center">Measurable Elements of GOV.3</div>

1.   Organization plans describe the care and services to be provided.
2.   The care and services to be offered are consistent with the organization's mission.
3.   The types of care and services to be provided by the organization have been determined by clinical leaders.

GOV.3.1   The medical director provides oversight of contracts for medical or management services.

Intent of GOV.3.1
Organizations frequently have the option to provide clinical and either management services directly or arranges for such services through referral, consultation, contractual arrangements, or other agreements. Such services may range from radiology to pathology. In all cases, there is leadership oversight for such contracts or other arrangements to

assure that the services meet patient needs and are monitored as part of the organization's quality management and improvement activities.

<div align="center">Measurable Elements of GOV 3.1</div>

1. There is a process for clinical leadership oversight of clinical services.
2. Services provided under contracts and other arrangements meet patient needs.
3. Contracts and other arrangements are monitored as part of the organization's quality management and improvement program.

GOV.3.2 Medical, nursing, and other clinical leaders are educated in the concepts of quality management and improvement.

Intent of GOV.3.2
A health care program's primary purpose is to provide quality patient care and work to improve patient care outcomes over time. Applying quality management and improvement principles accomplish these goals. Thus, medical, nursing, and other clinical leaders of a program need to be familiar with the concepts and methods of quality management and improvement; personally participate in quality management and improvement processes; assure that clinical monitoring includes opportunities for the evaluation of professional performance; and use available and relevant clinical practice guidelines to provide the scientific basis for such monitoring.

<div align="center">Measurable Elements of GOV 3.2</div>

1. Medical, nursing, and administrative leaders are familiar with the concepts and methods of quality management and improvement.
2. The above leaders participate in relevant quality management and improvement processes.
3. Professional performance is monitored as part of clinical monitoring.
4. Medical, nursing, and administrative leaders use available and relevant clinical practice guidelines where appropriate in clinical monitoring.

GOV.3.3 NASA OH leaders assure that there are uniform programs for the recruitment, retention, development, and continuing education of all staff members.

Intent of GOV.3.3
The organization's ability to care for patients is directly related to its ability to attract and retain qualified, competent staff. Leaders recognize that staff retention, rather than recruitment, provides greater long-term benefit. Retention is increased when leaders support staff advancement through continuing education. Thus, the leaders collaborate to plan and implement uniform programs and processes related to recruitment, retention, development, and continuing education of all staff members.

<div align="center">Measurable Elements of GOV 3.3</div>

1.   There is a planned process for staff recruitment and retention.
2.   There is a planned process for staff personal development and continuing education.
3.   The planning is collaborative and includes all departments and services in the organization.

GOV.3.4   Organization leaders foster communication and coordination among those individuals and departments responsible for providing clinical services.

Intent of GOV.3.4
To coordinate and integrate patient care, the leaders develop a culture that emphasizes cooperation and communication. The leaders develop formal (standing committees, joint teams) and informal (newsletters, posters) methods for promoting communication among services, and individual staff members. Coordination of clinical services comes from an understanding of each clinic's mission and services, and from collaboration in developing common policies and procedures.

Measurable Elements of GOV.3.4
1.   Medical, nursing and administrative leaders foster communication among departments, services, and individual staff members.
2.   The above leaders foster coordination of clinical services.

GOV.4   NASA OH medical, nursing, and administrative leaders plan and implement an effective organizational structure to support their responsibilities and authority.

GOV.4.1   NASA OH organizational structure and Center processes support professional communication.

GOV.4.2   NASA OH organizational structure and Center processes support clinical planning and policy development.

GOV.4.3   NASA OH organizational structure and Center processes support the oversight of professional ethical issues.

GOV.4.4   NASA OH organizational structure and Center processes support the oversight of the quality of clinical services.

Intent of GOV.4 through GOV.4.4
Medical, nursing, and other clinical leaders have a special responsibility to patients and to the organization. These leaders support good communication between professionals; jointly plan and develop policies that guide the delivery of clinical services; provide for the ethical practice of their respective professions; and oversee the quality of patient care.

The leaders of the medical and nursing staff create a suitable, effective organizational structure to carry out these responsibilities. The organizational structure(s) can be composed of a single group of representatives from the clinical disciplines, or alternately by leadership structures from each clinical discipline. The structure(s) chosen can be highly organized with bylaws, rules, and regulations, or can be informally organized.

In general, the structure(s) of clinical leadership chosen is (are) inclusive of all the relevant clinical disciplines, consistent with the organization's ownership, mission and governing structure, appropriate for the complexity of the organization and size of the professional staffs, and effective in carrying out their responsibilities.

Measurable Elements of GOV.4
1.   There is (are) effective organizational structure(s) utilized by medical, nursing, and administrative leaders to carry out their responsibilities and authority.
2.   The structure(s) is (are) appropriate to the organization's size and complexity.

Measurable Element of GOV.4.1
1.   The organizational structure(s) and processes support professional and clinical communication.

Measurable Element of GOV 4.2
1.   The organizational structure(s) and processes support clinical planning and policy development.

Measurable Element of GOV 4.3
1.   The organizational structure(s) and processes support oversight of professional ethical issues.

Measurable Element of GOV.4.4
1.   The organizational structure(s) and processes support oversight of the quality of clinical services.

GOV.5   One or more qualified individuals provide direction for each occupational health clinic in the NASA OH.

Intent of GOV.5
The clinical care, patient outcomes, and overall management of a health care program are only as good as the clinical and managerial activities of each service.

Good clinical performance requires clear and effective leadership from a qualified individual.

Measurable Elements of GOV.5

1.   An individual with appropriate training, education, and experience directs each NASA OH clinic.
2.   When more than one individual is responsible for providing direction, the responsibilities of each are defined in writing.

GOV.5.1   NASA OH medical directors are responsible for written identification of services to be provided.

GOV.5.1.1   NASA OH clinic services are coordinated and integrated.

Intent of GOV.5.1 and GOV.5.1.1
Documents prepared by each clinic define goals, as well as identify current and planned services. Clinic policies and procedures reflect their goals and services, as well as the knowledge, skills, and availability of staff members required to evaluate and provide for patient care needs.

Clinical services provided to patients are to be coordinated and integrated within each clinic (i.e. there is integration of medical and nursing services).

Measurable Elements of GOV.5.1
1.   Written documentation describes the clinical services provided.
2.   Each program has policies and procedures that guide the provision of identified services.
3.   Each clinic has policies and procedures that address the knowledge and skill needed by staff members to assess and meet patient needs.

Measurable Elements of GOV.5.1.1
1.   There is coordination and integration of services within each department or service.
2.   There is coordination and integration of services with other departments and services.

GOV.5.2   NASA OH medical directors recommend space, staffing, and other resources needed.

Intent of GOV.5.2
The medical director makes their needs for human and other resources known to the program manager. This assures that adequate staff, space, equipment, and other resources are available to meet patient needs at all times.

Measurable Elements of GOV.5.2
1.   Medical directors make space recommendations needed to provide services.
2.   Medical directors make staffing recommendations needed to provide services.
3.   Medical directors recommend additional resources needed to provide services.

GOV.5.3   NASA OH program managers' suggest criteria for selecting the clinic's professional staff, and choose individuals who meet those criteria.

Intent of GOV.5.3
The program managers are responsible for defining and applying criteria for professional clinical staff selection for their respective areas of responsibility. The program manager considers the services provided and planned by their areas in addition to the education, skills, knowledge, and experience needed to provide those services. Criteria are used to make selections of professional staff.

Measurable Elements of GOV.5.3
1.   Criteria related to the education, skills, knowledge and experience of professional staff are developed by the program manager and when required, submitted for endorsement.
2.   The medical director in the selection of professional staff utilizes these criteria.

GOV.5.4   NASA OH medical directors assure the provision of orientation and training for all staff members within their respective areas of responsibility, appropriate to the staff member's responsibilities.

Intent of GOV.5.4
Medical directors assure that all staff members in the clinic understand their responsibilities. Orientation and training is established for new employees. The orientation includes the mission of the organization, the mission of the clinic and scope of services provided, and policies and procedures related to providing services.

All staff members are knowledgeable about the infection prevention and control procedures of the organization. When new or revised policies or procedures are implemented, staff are appropriately oriented and trained.

Measurable Element of GOV.5.4
1.   The medical director has established an orientation process for clinic staff members.
2.   The medical director has established an orientation process for new employees.
3.   The medical director has established an orientation process for updating staff members regarding new or revised policies.

GOV.5.5   NASA OH medical directors monitor the clinic's performance as well as individual staff performance.

GOV.5.5.1 NASA OH medical directors have the data and information needed to effectively manage, and continuously improve the services provided by their areas of responsibility.

GOV.5.5.2   NASA OH medical directors integrate clinic activities into the
            organization's quality management and improvement program.

Intent of GOV.5.5 through GOV.5.5.2
One of the most important responsibilities of the medical director is to implement the
organization's quality management and improvement program within their clinics or
services. In particular, the NASA OH monitoring and improvement priorities that relate
to the clinic are implemented.

The medical director is responsible for assuring that monitoring activities provide the
opportunity for individual staff evaluation, as well as the processes of care. Thus,
monitoring includes, over time, all patient services provided. Monitoring clinic data and
information are important to the NASA OH quality management and improvement
program.

Measurable Elements of GOV.5.5
1.   Medical directors have implemented quality monitors that address the services
     provided in their areas of responsibility.
2.   Medical directors have implemented quality monitors that address the
     responsibilities of staff members in their areas of responsibility.
3.   Medical directors have implemented quality control programs when indicated.

Measurable Element of GOV.5.5.1
1.   Medical directors are provided the data and information needed to manage and
     improve care and services within their areas of responsibilities.

Measurable Element of GOV.5.5.2
1.   Medical directors have integrated quality monitoring and improvement efforts into
     that of the NASA OH.

Section II: Management-Directed Principles
Information Management Services (IMS)

IMS.1   NASA OH plans and implements processes to meet the information needs of all those who provide clinical services, those who manage the services, and those outside the organization who require certain data and information.

IMS.1.1   NASA OH has a plan to meet information needs.

IMS.1.2   The plan is based on an assessment of the needs of those within and outside the occupational health program.

IMS.1.3   The plan is appropriate to the occupational health program's size and complexity of services.

Intent of IMS.1 through IMS.1.3

Important information is generated and utilized during patient care, and used for managing a safe and effective program. The capture and provision of information requires effective planning.

Effective planning incorporates input from a variety of sources including care providers, clinic managers and leaders, and those outside NASA OH that need or require data or information about operations and care processes.

The organization's information management strategies are influenced by the priority information needs of these sources. Information strategies are appropriate to the organization's size, complexity of services, availability of trained staff and other human and technical resources. The plan is comprehensive and includes all clinics and services of NASA OH.

Measurable Elements of IMS.1

1. The information needs of those who provide clinical services are considered in the process of developing an information plan.
2. The information needs of those who manage the NASA OH are considered in the development of an information plan.
3. The information needs and requirements of individuals and agencies outside the NASA OH are considered in the development of an information plan.

Measurable Element of IMS.1.1

1. An information plan is developed and implemented in the organization.

Measurable Elements of IMS.1.2

1. Strategies are implemented to meet the information needs of those who provide clinical services.
2. Strategies are implemented to meet the information needs of those who manage the organization.

3.   Strategies are implemented to meet the information needs of individuals and agencies outside the organization.

Measurable Elements of IMS.1.3

1.   The information plan is appropriate to the size of the organization.
2.   The information plan is appropriate to the complexity of the organization.

IMS.1.4   The NASA OH information plan includes how confidentiality, security, and integrity of data and information will be maintained.

IMS.1.5   The NASA OH information plan defines the levels of security needed.

IMS.1.5.1   The NASA OH has a policy identifying those authorized to make entries in patient medical records and determines content and format.

IMS.1.5.2   Only authorized providers make entries in patient medical records.

IMS.1.5.3   Each patient medical record entry identifies the author and notes date of entry.

Intent of IMS.1.4 through IMS.1.5.3

The organization maintains the security and confidentiality of data and information. Particular care is taken when preserving the confidentiality of sensitive data and information. The balance between data sharing and data confidentiality is addressed.

The organization determines the level of security and confidentiality maintained for various categories of information. Access to each category of information is based on need to know and defined by job title and function.

Components of an effective process include a definition of who has access to information, specific information to which an individual has access, the user's obligation to keep information confidential, and the procedures to be followed when confidentiality and security are violated.

Maintenance of patient information security includes determination of who is authorized to obtain a patient medical record, and/or make entries. A policy is developed to authorize such individuals and identifies the content and format for entries into patient medical records.

A process is developed that assures only authorized individuals make entries in patient medical records, and that each entry identifies the author of the entry and the date. If required by the organization, the time of the entry is also noted, such as for timed treatments or medication orders.

Measurable Elements of IMS.1.4

1. The information plan addresses how confidentiality of data and information will be maintained.
2. The information plan addresses how security of data and information will be maintained.
3. The information plan addresses how the integrity of data and information will be maintained.

Measurable Elements of IMS.1.5

1. The information plan identifies levels of security for each category of data and information.
2. The information plan identifies those who have a need to know or job position that permits access to each category of data and information.

Measurable Elements of IMS.1.5.1

1. Those authorized to make entries in the employee medical record are identified in clinic policy.
2. The format and location of entries into the employee medical record are determined by clinic policy.

Measurable Element of IMS.1.5.2

1. There is a process to assure that only authorized individuals make entries into employee medical records.

Measurable Elements of IMS.1.5.3

1. The author can be identified for each entry in the employee medical record.
2. The date of each employee medical record entry can be identified.
3. When required by the organization, the time of an entry into the patient medical record can be identified.

IMS.1.6   NASA OH has a policy on the retention time of employee medical records, data, and other information.

Intent of IMS.1.6
The organization develops and implements a policy that guides the retention of employee medical records and other data and information. Employee medical records and other data and information should be retained for sufficient periods of time to comply with laws and regulations; and support employee care, management, legal documentation, research, and education. Medical records retention policy is consistent with the confidentiality and security of such information. When the retention period is complete, employee medical records and other records, data, and information are destroyed properly.

Measurable Elements of IMS.1.6
1. The organization has a policy on the retention of patient medical records and other data and information.
2. The patient medical record retention process provides for proper confidentiality and security.
3. Patient medical records, data, and information are destroyed appropriately when retention time has lapsed.

IMS.1.7 The NASA OH information management plan is implemented and supported.

Intent of IMS.1.7
The organization's information management plans, once complete and approved as necessary, is implemented. The organization provides staff, technology, and other resources necessary for implementation and meets the identified information needs of health care providers, managers, and others.

Measurable Elements of IMS.1.7
1. The organization's information management plan is implemented.
2. Required technology and other resources are present to support the implementation of the information management plan.

IMS.1.8 Standardized diagnosis codes, procedure codes, symbols, and definitions are used within the NASA OH.

Intent of IMS.1.8
Standardizing terminology, definitions, vocabulary, and nomenclature facilitates comparison of data and information within and among clinics and services. Uniform use of diagnosis and procedure codes supports data aggregation and analysis. Abbreviations and symbols are also standardized. Such standardization is consistent with recognized local and national standards.

Measurable Elements of IMS.1.8
1. Standardized diagnosis codes are preferred.
2. Standardized procedure codes are preferred.
3. Standardized symbols and definitions are used.

IMS.1.9 The data and information needs of those within and outside NASA OH are met on a timely basis and in a format that meets user expectations, with the desired frequency.

Intent of IMS.1.9
The format and methods of disseminating data and information to the intended users are tailored to meet the user expectations. Dissemination strategies include providing only the data and information the user requests or needs; formatting the report to aid use in the decision process; providing reports with the frequency needed by the user; linking sources of data and information; and providing interpretation or clarification of data.

Measurable Elements of IMS.1.9
1. Data and information dissemination meets user needs.
2. Users receive data and information on a timely basis.
3. Users receive data and information in a format that aids its intended use.

IMS.1.10   Appropriate NASA OH clinical and managerial staff members participate in identifying, integrating, and using information management technology.

Intent of IMS.1.10
Technology is carefully matched to the organization's current and future needs and resources. Available technology is integrated with existing information management processes and helps integrate the activities of all the clinics and services. This level of coordination requires that essential clinical and managerial staff members participate in the selection process.

Measurable Elements of 1.10
1. Clinical staff members participate in information technology decisions.
2. Managerial staff members participate in information technology decisions.

IMS.1.11   NASA OH staff members have access to the level of information related to their needs and job responsibilities.

Intent of IMS.1.11
Individual staff members should have access to the information they need to effectively carry out their job responsibilities. This access is consistent with the levels of confidentiality and security determined by the organization for categories of data and information. Staff members may be granted access to data and information through the use of access codes, keys to data-storage areas, badges, and other means.

Measurable Elements of IMS.1.11
1. Staff members have access to the information needed to carry out their job responsibilities.
2. Access is consistent with the organization's confidentiality and security policies.

IMS.1.12   NASA OH assures that clinics and services have policies and procedures to protect medical records and information from loss, destruction, tampering, and unauthorized access or use.

Intent of IMS.1.12
Patient medical records, data, and information are secure and protected at all times. Active patient medical records are kept in areas where only authorized professional staff have access, and records are stored in locations where heat, water, fire, or other damage is not likely to occur. The organization also considers the potential for unauthorized access to electronically stored information and implements processes to prevent such access.

Measurable Elements of IMS.1.12
1.   Patient medical records and information are protected from loss or destruction.
2.   Patient medical records and information are protected from tampering and unauthorized access or use.
3.   Patient medical records and information needing protection extends to the electronic medical record.

IMS.1.13   Clinical and managerial information is integrated to support the NASA OH governance and leadership.

Intent of IMS.1.13
The information management process makes it possible to combine information from various sources and generate reports to support decision making. In particular, the combination of clinical and managerial information assists the leaders of the organization to plan collaboratively. The information management process supports leaders with integrated longitudinal and comparative data.

Measurable Element of IMS.1.13
1.   Clinical and managerial data and information are integrated as needed to support decision-making.

IMS.1.14   Appropriate staff members are educated and trained in the principles of information management.

Intent of IMS.1.14
Individuals in the organization who generate, collect, analyze, and use data and information are educated and trained to effectively participate in managing that information. Education and training enable these individuals to understand security and confidentiality of data and information; use measurement instruments, statistical tools, and data analysis methods; assist in interpreting data; use data and information to help in decision making; educate and support the participation of patients in care processes; and use indicators to assess and improve care and work processes. Individuals are educated and trained as appropriate to their responsibilities, job descriptions, and data and information needs.

Measurable Elements of IMS.1.14

1. Appropriate staff members are provided education on the principles of information management.
2. The information management education is appropriate to the needs and job responsibilities of the staff members.

IMS.2   NASA OH initiates and maintains a medical record for every patient assessed or treated.

Intent of IMS.2

Every patient assessed or treated within the organization has a medical record. The medical record is assigned an identifier unique to the patient, or some other mechanism is used to link the patient with his or her medical record. A single medical record and a single identifier enable the organization to easily locate patient medical records and to properly document the care of patients over time.

Measurable Elements of IMS.2

1. A medical record is initiated for every employee assessed or treated by the organization.
2. Employee medical records are maintained with an identifier unique to the patient, or some other effective method.

IMS.2.1   NASA OH medical records contain sufficient information to identify the employee, support the diagnoses, justify treatment, document the course and results of treatment, and promote continuity of care among health care providers.

Intent of IMS.2.1

The medical record of each employee needs to document sufficient information to support the diagnoses, justify the treatment provided, and document the course and results of treatment. A standardized format and content of the patient's medical record will promote the integration and continuity of care among the various care providers.

The organization determines the specific data and information recorded in the medical record of each employee assessed or treated. The medical record of each employee receiving emergency care includes specific information as identified in standard IMS.2.1.1.

Measurable Elements of IMS.2.1

1. Employee medical records contain adequate information for patient identification.
2. Employee medical records contain adequate information to support the diagnoses.
3. Employee medical records contain adequate information to justify the care and treatment.
4. Employee medical records contain adequate information to document the course and results of treatment.

5. Employee medical records promote continuity of care.
6. The specific content of patient medical records has been determined by the organization.

IMS.2.1.1 NASA OH medical records for emergency patients include identification (see IMS.2.1), arrival time, means of arrival, conclusions at the termination of treatment, a description of the patient's condition at discharge or transfer, and any follow-up care recommended.

Intent of IMS.2.1.1
The medical records of patients treated on an emergency basis should provide additional information. The documentation of time and means of arrival, conclusions of assessment and treatment, condition at time of discharge or transfer, and follow-up recommendations promote continuity of care among other care providers.

Measurable Elements of IMS.2.1.1
1. The medical records of emergency patients include arrival time.
2. The medical records of emergency patients include the means of arrival.
3. The medical records of emergency patients include conclusions at the termination of treatment.
4. The medical records of emergency patients include the patient's condition at discharge or transfer.
5. The medical records of emergency patients include any follow-up care.

IMS.2.2 As part of its performance improvement activities, NASA OH regularly evaluates patient medical record content and comprehensiveness.

Intent of IMS.2.2
Each program determines the content and format of the patient medical record and has a process to assess the content and comprehensiveness. The process is a part of the organization's performance improvement activities, and is carried out regularly. The patient medical record review is based on a sample representing the practitioners who are providing care, and the types of care provided.

Staff members from medicine and nursing conduct the review process, in addition to other relevant clinical professionals who are authorized to make entries in the patient medical record. The review focuses on timeliness, completeness, legibility, and so forth.

Patient medical record content required by laws or regulations is included in the review process. Records selected for review includes those of patients currently receiving care, as well as records of discharged patients.

Measurable Elements of 2.2
1. Employee medical records are reviewed regularly.
2. The review of patient medical records uses a representative sample.

3. Representatives from medicine, nursing conduct the review of patient medical records, and others authorized to make entries in patient medical records, or manage patients.

4. The review of patient medical records focuses on the timeliness, legibility, and completeness of the medical record.

5. Contents of the patient medical record required by laws or regulations are included in the review process.

IMS.2.3 NASA OH health care providers have access to the information in a patient's medical record each time the patient is seen for a new or continuing care episode.

Intent of IMS.2.3

Patient medical records must be complete and available to care providers for each patient visit. Thus, the organization has a process to assure that for each episode of care, the patient's providers have access to the information in the medical record.

Measurable Element of IMS.2.3

1. Care providers have access to the patient's medical record each time the patient is seen for care or treatment.

IMS.3 NASA OH aggregate data and information support patient care, program management, and the quality management program.

IMS.3.1 NASA OH has a process to aggregate data and has determined what data and information are to be regularly aggregated, in order to meet the needs of clinical and managerial staff, and agencies outside the organization.

IMS.3.2 NASA OH supports patient care, education, research, and management with timely information from current sources.

IMS.3.3 NASA OH has a process for using or participating in external databases such as Medline on the Internet.

IMS.3.3.1 NASA OH uses occupational medicine external reference databases for comparative purposes, where appropriate.

IMS.3.3.2 NASA OH assures that the security and confidentiality of data and information are maintained when contributing to or using external databases.

Intent of IMS.3 through IMS.3.3.2

The organization collects and analyzes aggregate data to support patient care activities and program management. Aggregate data provides a profile of the organization's health program over time and allows comparison with other programs. Thus, aggregate data are an important part of the organization's performance improvement activities. In particular, aggregate data from risk management, utility system management, infection control, and utilization review can help the organization understand its current performance and identify opportunities for improvement.

Measurable Elements of IMS.3

1. Aggregate data and information support patient care activities.
2. Aggregate data and information support program management.
3. Aggregate data and information support the quality management program.

Measurable Elements of IMS.3.1

1. The program has a process to aggregate data in response to identified user needs.
2. The program provides needed data to agencies outside NASA OH.

Measurable Elements of IMS.3.2

1. Access to current scientific and other information supports patient care activities.
2. Access to current scientific and other information supports clinical education.
3. Access to current scientific and other information supports NASA OH research.
4. Access to current professional and other information supports management.
5. Information is provided in a time frame that meets user expectations

Measurable Element of IMS.3.3

1. The organization has a process to participate in or use information from external databases.

Measurable Element of IMS.3.3.1

1. The organization contributes data or information to external databases in accordance with laws or regulations.

Measurable Elements of IMS.3.3.2

1. The organization compares its performance using external reference databases.

Measurable Element of IMS.3.3.3

1. Security and confidentiality are maintained when contributing to or using external databases.

Section II: Management-Directed Principles
Infection Control Services (ICS)

ICS.1   NASA OH designs and implements a coordinated process to reduce the risks of nosocomial infections in patients and health care workers.

Intent of ICS.1

For an infection prevention and control program to be effective, it must be comprehensive, encompassing both patient care and employee health. The program addresses the infection issues that are epidemiologically important to the occupational health program. In addition, the infection prevention program is appropriate to the size and geographic location of the organization, the services offered by the organization, and the patient population.

Measurable Elements of ICS.1

1.   There is a program to reduce the risk of nosocomial infections in patients and health care workers.
2.   The program is appropriate to the size and geographic location of the occupational health program, the services offered, and the patients served.

ICS.1.1   All patient, staff, and visitor areas of the NASA OH are included in the infection control program.

Intent of ICS.1.1

Infections can enter the occupational health program via patients, staff members and visitors. Thus, all areas of the organization, where these individuals are found, must be included in the program of infection surveillance, prevention, and control.

Measurable Element of ICS.1.1

1.   All areas of the health care organization are included in the infection control program.

ICS.2   NASA OH establishes the focus of the nosocomial infection prevention and reduction program.

Intent of ICS.2

Each clinic must identify which epidemiologically important infections, infection sites, and associated devices will be the focus of efforts to prevent and reduce the incidence of nosocomial infections.

Infections should be considered that involve: Respiratory tract – such as environmental exposures, and so on; urinary tract – such as retention, from on the job injury or inadequate fluid intake, and so on; burns – such as chronic over-exposure to the sun, and so on; and wounds – such as injury, their care and type of dressing, and associated aseptic procedures.

Measurable Elements of ICS.2

1. The organization has established the focus of the infection control program to prevent or reduce the incidence of nosocomial infections.
2. Respiratory tract or other system infections are included as identified by the clinics or services within the organization.
3. Urinary tract or other system infections are included as identified by the clinics or services within the organization.
4. High-level exposure is included as appropriate and identified by the clinics or services within the Center.
5. Wounds are included as appropriate and identified by the clinics and services within the organization.

ICS.3   NASA OH identifies the procedures and processes associated with the risk of infection and implements strategies to reduce infection risk.

Intent of ICS.3

Health care programs assess and care for patients using many simple and complex processes, each associated with a level of infection risk to patients and staff. It is thus important for a program to review those processes and, as appropriate, implement needed policies, procedures, education, and other activities to reduce the risk of infection.

Infection risk reduction activities include, as appropriate: Equipment cleaning and sterilization, in particular, invasive equipment; laundry and linen management; disposal of infectious waste and body fluids; the handling and disposal of blood and blood components; and disposal of sharps and needles.

Measurable Elements of ICS.3

1. The organization has identified those processes associated with infection risk and implemented strategies to reduce infection risk.
2. Equipment cleaning and sterilization are included, as appropriate to the organization.
3. Laundry and linen management is included, as appropriate to the organization.
4. Disposal of infectious waste and body fluids is included, as appropriate to the organization.
5. The handling and disposal of blood (from open wounds) is included, as appropriate to the organization.
6. Disposal of sharps and needles is included, as appropriate to the organization.

ICS.4   NASA OH assures that gloves, masks, soap, and disinfectants are available and used correctly when required.

Intent of ICS.4

Hand washing, barrier techniques, and disinfecting agents are fundamental to infection prevention and control. The organization identifies those situations in which the use of masks and gloves is required and provides training in their correct use. Soap and disinfectants are located in those areas where hand washing and disinfecting procedures are required. Staff members are educated in proper hand washing and disinfecting procedures.

<center>Measurable Elements of ICS.4</center>

1. The organization identifies those situations for which gloves and/or masks are required.
2. Gloves and/or masks are correctly used in appropriate situations.
3. The organization identifies those areas where hand washing and disinfecting procedures are required.
4. Hand washing and disinfecting procedures are used correctly in those areas.

ICS.5   Environmental cultures are obtained on a routine basis from designated sites in the NASA OH that are associated with significant infection risk.

Intent of ICS.5

Infection surveillance procedures rely on specimen collection from those areas of the organization thought to be associated with a high incidence or risk of infection. The infection control program includes identifying those sites and routinely collecting specimens from those sites. The sites associated with the activities described in ICS.3 are frequently included in such surveillance activities.

Those individuals who collect specimens are trained in the proper collection and handling of microbiological specimens.

<center>Measurable Elements of ICS.5</center>

1. The organization identifies those sites from which specimens are to be collected and the frequency of the collections from each site.
2. Specimens are collected and handled properly.

ICS.6   NASA OH assures that one or more individuals oversee all infection control activities. This individual(s) is qualified in infection control practices through continuing education, training, experience, or certification.

Intent of ICS.6

The infection control program has oversight appropriate to the size and scope of the organization. One or more individuals, acting on a part-time, or intermittent basis provides that oversight. Their qualifications depend on the activities they will carry out and may be met through a variety of ways such as education, training, experience, and certification or licensure.

Measurable Elements of ICS.6

1. One or more individuals oversee the infection control program.
2. The individuals are qualified for the scope and complexity of their responsibilities.

ICS.7   NASA OH assures that a designated individual or group monitors and coordinates infection control activities in the organization.

Intent of ICS.7
Infection control activities reach into every part of a health care program and involve individuals in multiple departments and services. To coordinate the overall program, one individual or a committee is appointed. Responsibilities include the establishment of criteria for defining nosocomial infections, and establishing data collection methods and reporting processes. Coordination involves communication with all parts of the organization to assure that the program is continuous and proactive.

Measurable Element of ICS.7

1. Responsibility for coordinating the activities of the overall infection control program is assigned to one individual, a committee, or other mechanism.

ICS.8   Coordination of infection control activities involves medicine, nursing, and other disciplines as appropriate to NASA OH.

Intent of ICS.8
Whatever the mechanism chosen by the organization to coordinate the infection control program, medicine and nursing are represented and engaged in the activities. Others may be included as determined by the size of the organization and the services offered.

Measurable Elements of ICS.8

1. Coordination of infection control activities involves medicine.
2. Coordination of infection control activities involves nursing.
3. Coordination of infection control activities involves others as appropriate.

ICS.9   NASA OH assures that the infection control program is based on current scientific knowledge, accepted practice guidelines, and applicable laws and regulations.

ICS.10   NASA OH information management systems support the infection control program.

Intent of ICS.9 and ICS.10
Information is essential to an infection control program. Current scientific information is required to understand and implement effective surveillance and control activities. Practice guidelines provide information on preventive practices and infections associated

with clinical services. Applicable laws and regulations define elements of the basic program and reporting requirements.

Information management systems support the tracking of risks, rates, and trends in nosocomial infections. Information management functions support data analysis, interpretation, and presentation of findings. In addition, infection control program data and information are cooperatively managed with those of the organization's quality management and improvement program.

Measurable Elements of ICS.9

1.   The infection control program is based on current scientific knowledge.
2.   The infection control program is based on accepted practice guidelines.
3.   The infection control program is based on applicable laws and regulations.

Measurable Element of ICS.10

1.   Information management systems support the infection control program.

ICS.11   NASA OH assures that the infection control program is integrated with the program for quality management and improvement.

ICS.11.1   NASA OH assures that the infection control program tracks infection risks, infection rates, and trends in nosocomial infections.

ICS.11.2   Monitoring includes using indicators related to infection issues that are epidemiologically important to NASA OH.

ICS.11.3   The NASA OH infection control program uses risk, rate, and trend information to design or modify processes in order to reduce nosocomial infections to the lowest possible levels.

ICS.11.4   The NASA OH infection control program compares its infection control rates with other programs through comparative databases.

ICS.11.5   The results of infection monitoring in the NASA OH are regularly communicated to staff members, doctors, and management.

ICS.11.6   The NASA OH infection control program reports information regarding infections to appropriate external public health agencies.

Intent of ICS.11 through ICS.11.6
The infection control process is designed to lower the risk of infection for patients, staff, and others. To reach this goal, the organization must proactively monitor and track risks, rates, and trends in nosocomial infections. The infection control program uses monitoring information to improve infection prevention and control activities, and to reduce nosocomial infection rates to the lowest possible levels. The program can best use

monitoring data and information by understanding similar rates and trends in other similar programs, and contributing data to infection-related databases.

Measurable Element of ICS.11

1.   Infection control activities are integrated into the organization's quality management and improvement program.

Measurable Elements of ICS.11.1

1.   Nosocomial infection risks are tracked.
2.   Nosocomial infection rates are tracked.
3.   Nosocomial infection trends are tracked.

Measurable Elements of ICS.11.2

1.   Monitoring of infections uses indicator measures.
2.   The indicators measure epidemiologically important infections.

Measurable Elements of ICS.11.3

1.   Processes are redesigned based on risk, rate, and trend data and information.
2.   Processes are redesigned to reduce infection risk to the lowest levels possible.

Measurable Element of ICS.11.4

1.   Infection control rates are compared to the rates of other programs.

Measurable Elements of ICS.11.5

1.   Monitoring results are communicated to medical staff.
2.   Monitoring results are communicated to nursing staff.
3.   Monitoring results are communicated to management.

Measurable Element of ICS.11.6

1.   Infection control program results are reported to public health agencies as required.
2.   Infection control data is compared with past performance and goals for improvement are identified.

ICS.12   The program provides education on infection control practices to staff, doctors, patients, and, as appropriate, other caregivers.

ICS.12.1   All staff receives an orientation to the occupational health program's infection control policies and practices.

ICS.12.2   All staff is educated in infection control when new policies are implemented and when significant trends are noted in surveillance data.

Intent of ICS.12 through ICS.12.2
For a program to have an effective infection control program, it must educate staff members about the program when they begin work in the occupational health program and regularly thereafter. The education program includes professional staff, clinical and non-clinical support staff, and even patients, if appropriate. The education focuses on the policies, procedures, and practices that guide the infection control program of the occupational health program. The education also includes the findings and trends from the monitoring activities.

Measurable Elements of ICS.12
1. The program provides education about infection control.
2. Medical, nursing, and other professional staff are included in the program.
3. Patients are included when appropriate to the patient's needs and condition.

Measurable Element of ICS.12.1
1. All staff is oriented to the policies, procedures, and practices of the infection control program.

Measurable Elements of ICS.12.2
1. Monitoring of infections uses indicator measures.
2. The indicators measure epidemiologically important infections.

Section II: Management-Directed Principles
Performance Improvement Management (PIM)

PIM.1   Those responsible for governing and leading NASA OH participate in
               planning and monitoring a quality management and improvement program.

PIM.1.1   The leaders of NASA OH collaborate in carrying out the quality
               management and improvement program.

PIM.1.1.1   NASA OH assures there is a written plan for a program-wide quality
               management and improvement program.

PIM.1.1.2   The program includes all components of NASA OH quality monitoring and
               control activities, including risk management.

Intent of PIM.1 through PIM.1.1.2
If a program is to instigate and maintain quality improvement, effective leadership and
planning are essential. The governing leaders are as important to the process as are
managers and clinical care providers. Leaders participate in establishing the
organization's commitment, approach to improvement, and program management and
oversight. The leaders, through their vision and support, shape the quality culture of the
organization.

Quality improvement programs are most effective when they are planned throughout the
organization. The leaders plan the overall framework for quality management and
improvement. This framework is defined in writing for the quality improvement program.

The quality improvement program includes all clinics and services in the organization,
and all related quality activities such as clinical laboratory quality control, and risk
management activities. An inclusive program is necessary to improve patient outcomes as
patients receive care from many different clinical disciplines. The quality improvement
program is systematic, in that it employs similar processes and knowledge to carry out all
quality management and improvement activities.

Measurable Element of PIM.1
1.   Those who govern and provide leadership participate in planning and monitoring
       the quality management and improvement program.

Measurable Elements of PIM.1.1
1.   Clinical leaders participate in planning and carrying out the quality management
       and improvement program.
2.   Managerial leaders participate in planning and carrying out the quality
       management and improvement program.

Measurable Elements of PIM.1.1.1
1.   The quality management and improvement program is organization wide.
2.   There is a written plan for the quality management and improvement program.

Measurable Element of PIM.1.1.2
1.   The quality improvement program includes all components of the organization's quality monitoring and control activities.

PIM.1.2   NASA OH leaders prioritize which processes should be monitored and which improvement activities should be carried out.

Intent of PIM.1.2
A primary responsibility of leaders is to set priorities. Organizations typically find more opportunities for quality monitoring and improvement than they have human and other resources. Therefore, the leaders provide focus for the organization's quality monitoring and improvement activities. The leaders prioritize those critical, high-risk, problem-prone, and primary processes that most directly relate to the quality of care and safety of the environment. The leaders use available data and information to identify priority areas.

Measurable Elements of PIM.1.2
1.   The leaders set priorities for monitoring activities.
2.   The leaders set priorities for improvement activities.

PIM.1.3   NASA OH leaders provide technological and other support to the quality management and improvement program.

Intent of PIM.1.3
Monitoring clinical and management functions in a health care program results in the accumulation of data and information. Understanding how well the organization is doing depends on analysis of the data and information over time, and comparison with other agencies. The leaders understand monitoring and improvement priorities in terms of this necessary support. Support is provided consistent with the organization's resources and quality management needs.

Measurable Elements of PIM.1.3
1.   Organization leaders understand the technology and other support requirements for tracking and comparing monitoring results.
2.   Organization leaders provide technology and support, consistent with the occupational health program's resources, for tracking and comparing monitoring results.

PIM.1.4   NASA OH quality management and improvement program is coordinated, and program information is communicated to staff.

Intent of PIM.1.4
Available resources are used well when the quality management and improvement activities are centrally coordinated. Coordination is accomplished through a quality steering group or function that provides effective oversight of quality management and improvement activities throughout the organization. One of the responsibilities of such a coordinating group is to communicate information about the quality management and improvement program to staff members on a regular basis. In small occupational centers this may one or two individuals in total.

Measurable Elements of PIM.1.4
1.   The organization's quality management and improvement program is coordinated.
2.   Information regarding the quality improvement is communicated to staff regularly.

PIM.1.5   NASA OH assures that staff members are trained to participate in the quality improvement program.

Intent of PIM.1.5
Participating in data collection, analysis, planning and implementing quality improvements require knowledge and skill that most staff members do not possess or use regularly. Thus, when staff members are asked to participate in quality improvement activities they should receive training consistent with their role in the planned activity. The organization identifies or provides a knowledgeable trainer for this education. Staff members should be permitted to attend training as part of their assigned responsibilities.

Measurable Elements of PIM.1.5
1.   There is a training program for staff members that is consistent with their role in the quality management and improvement program.
2.   A knowledgeable individual provides the training.
3.   Staff members are permitted to participate in the training as part of their work assignment.

PIM.1.6   All staff involved in managing the NASA OH and providing clinical and support services participate in the program.

Intent of PIM.1.6
Staff members selected to participate in the quality management and improvement program are those closest to the activities or processes being monitored, studied, or improved. Both managerial and clinical staff members participate. Over time, a growing number of personnel have the opportunity to be trained and participate.

Measurable Element of PIM.1.6
1.   Both managerial and clinical staff members closest to the activities being monitored, studied, or improved participate in quality management and improvement activities.

PIM.2   The NASA OH quality improvement program designs new and modified systems and processes according to quality improvement principles.

PIM.2.1   New and modified processes incorporate design elements relevant to the process.

PIM.2.2   The NASA OH quality improvement program sets expectations for how new and modified processes should operate.

PIM.2.3   The NASA OH quality improvement program collects data to see if new and modified processes meet operational expectations.

Intent of PIM.2 through PIM.2.3

When processes or services are designed well, they draw on a variety of information sources. Good process design has many identifiable features. They are summarized as follows: Consistency with the organization's mission and plans; meets the needs of patients, staff, and others; uses current practice guidelines, clinical standards, scientific literature, and other relevant evidence-based information on clinical practice design; consistency with sound business practices; considers relevant risk management information; builds on available knowledge and skills in the organization; uses information from related improvement activities; and integrates and connects processes and systems.

When a quality improvement program designs new processes, suitable measures (indicators) are selected for the process. Once a new process is implemented data are collected to see if the process is actually operating as expected.

Measurable Element of PIM.2

1.   Quality improvement principles and tools are applied to the design of new or modified processes.

Measurable Element of PIM.2.1

1.   Design elements as noted above are considered when relevant to the process being designed or modified.

Measurable Element of PIM.2.2

1.   Indicators are selected to measure how well the newly designed or redesigned process operates.

Measurable Element of PIM.2.3

1.   Indicator data are used to evaluate the operation of the process.

PIM.3.   NASA OH leaders identify key measures (indicators) to monitor the organization's clinical and managerial structures, processes, and outcomes.

The clinical areas identified in standards PIM.3 through PIM.3.7 are included in NASA OH quality monitoring.

PIM.3.1   Clinical monitoring includes patient assessment.

PIM.3.2   Clinical monitoring includes laboratory and radiology safety and quality control programs.

PIM.3.3   Clinical monitoring includes special procedures (if performed).

PIM.3.4   Clinical monitoring includes the appropriate use of medications and medication errors.

PIM.3.5   Clinical monitoring includes the use of mild sedation (if applicable).

PIM.3.6   Clinical monitoring includes the availability, content, and use of patient medical records.

PIM.3.7   Clinical monitoring includes infection control, surveillance, and reporting.

The managerial areas identified in standards PIM.3.8 through PIM.3.16 are included in NASA OH.

PIM.3.8   Managerial monitoring includes financial management (if applicable).

PIM.3.9   Managerial monitoring includes the surveillance, control, and prevention of events that jeopardize the safety of patients and staff members.

PIM.3.10   Managerial monitoring includes the procurement of routinely required supplies and medications essential to meet patient needs.

PIM.3.11   Managerial monitoring includes reporting of activities as required by laws and regulations.

PIM.3.12   Managerial monitoring includes risk management.

PIM.3.13   Managerial monitoring includes utilization management.

PIM.3.14   Managerial monitoring includes patient expectations and satisfaction.

PIM.3.15   Managerial monitoring includes staff expectations and satisfaction.

PIM.3.16   Managerial monitoring includes patient demographics and diagnoses.

The general data collection areas identified in standards PIM.3.17 and PIM.3.18 are supported by NASA OH quality monitoring.

PIM.3.17   Data collection supports further study of areas targeted for study and improvement.

PIM.3.18   Data collection supports evaluation of the effectiveness of implemented improvements.

Intent of PIM.3.17 through PIM.3.18

Quality management and improvement are data driven. Because most programs have limited resources, they cannot collect data to monitor everything they would like. Thus, each clinic must choose which clinical and managerial processes and outcomes are most important to monitor. This decision is based on mission, patient needs, and services. Monitoring often focuses on those processes that are high risk to patients, offered in high volume, or are problem prone.

The organization's leaders are responsible for selecting essential measures to be included in the monitoring activities. The measures selected correlate to the important clinical and managerial areas identified in standards PIM.3 through PIM.3.16. For each of these areas, organization leaders decide the process, procedure, or outcome to be measured; how measurement will be accomplished; and the frequency of measurement.

Identifying the process, procedure, or outcome to be measured is clearly the most important step. The measure needs to focus on risk points in processes, procedures that frequently present problems or are performed in high volume, and outcomes that can be clearly defined and are under the control of the organization. New measures are selected when a current measure no longer provides data useful for the analysis of the process, procedure, or outcome.

A primary purpose of monitoring is to prevent clinical errors, such as medication errors. Monitoring data are critical to designing, creating, and maintaining a safe environment for patients, staff members, and visitors.

When errors or adverse events occur, the organization and its leaders evaluate the processes that led to the error or event. This evaluation is based on the collection of data regarding the targeted area. Faulty processes are redesigned, tested, and monitored to assure that the same or similar errors or events do not occur again.

To monitor processes, the organization should determine how to organize the monitoring activities, how often to collect data, and how to incorporate data collection into daily work processes.

Measurable Elements of PIM.3
1. The leaders identify essential measures to monitor clinical areas.
2. The leaders identify essential measures to monitor managerial areas.
3. Monitoring includes measures related to structures, processes and outcomes.
4. The scope, method, and frequency are identified for each measure.

Measurable Element of PIM.3.1
1. Clinical monitoring includes the areas identified in the principles of PI.

Measurable Element of PIM.3.2
1. Clinical monitoring includes the areas identified in the standard.

Measurable Element of PIM.3.3
1. Clinical monitoring includes the areas identified in the standard.

Measurable Element of PIM.3.4
1. Clinical monitoring includes the areas identified in the standard.

Measurable Element of PIM.3.5
1. Clinical monitoring includes the areas identified in the standard.

Measurable Element of PIM.3.6
1. Clinical monitoring includes the areas identified in the standard.

Measurable Element of PIM.3.7
1. Clinical monitoring includes the areas identified in the standard.

Measurable Element of PIM.3.9
1. Managerial monitoring includes the areas identified in the standard.

Measurable Element of PIM.3.10
1. Managerial monitoring includes the areas identified in the standard.

Measurable Element of PIM.3.11
1. Managerial monitoring includes the areas identified in the standard.

Measurable Element of PIM.3.12
1. Managerial monitoring includes the areas identified in the standard.

Measurable Element of PIM.3.13
1. Managerial monitoring includes the areas identified in the standard.

Measurable Element of PIM.3.14
1. Managerial monitoring includes the areas identified in the standard.

Measurable Element of PIM.3.15
1. Managerial monitoring includes the areas identified in the standard.

Measurable Element of PIM.3.16
1. Managerial monitoring includes the areas identified in the standard.

Measurable Element of PIM.3.17
1. Managerial monitoring includes the areas identified in the standard.

Measurable Element of PIM.3.18
1. Managerial monitoring includes the areas identified in the standard.

PIM.4   Individuals with appropriate experience, knowledge, and skills
             systematically aggregate and analyze data in the NASA OH.

Intent of PIM.4
To reach conclusions and make decisions, data must be aggregated, analyzed, and
transformed into useful information. Data analysis should involve individuals who
understand information management, have skills in data aggregation methods, and know
how to use various statistical tools.

Data analysis should involve the individuals accountable for the process or outcome
being measured. These individuals may be clinical, managerial, or a combination. Thus,
data analysis provides continuous feedback of quality management information to help
those individuals make decisions and continuously improve clinical and managerial
processes.

Measurable Elements of PIM.4
1. Data are aggregated, analyzed, and transformed into useful information.
2. Individuals with appropriate clinical or managerial experience, knowledge, and
   skills participate in the process.

PIM.4.1   NASA OH assures that the frequency of data analysis is appropriate to the
             process being studied and meets program requirements.

Intent of PIM.4.1
The program determines how often data are aggregated and analyzed. The frequency
depends on the activity or area being measured, the frequency of measurement (see
PIM.3), and the organization's priorities e.g., clinical laboratory quality control data may
be analyzed weekly to meet local regulations.

Measurable Elements of PIM.4.1

1.   The frequency of data analysis is appropriate to the process under study.
2.   The frequency of data analysis meets program requirements.

PIM.4.2   NASA OH assures that data are intensively assessed when significant unexpected events and undesirable trends and variation occur.

Intent of PIM.4.2

When the organization detects or suspects that an undesirable change has occurred, an intense analysis is initiated to determine where best to focus improvement activities. In particular, intense analysis is initiated when levels, patterns, or trends vary significantly and undesirably from what was expected, that of other similar programs, or recognized standards.

Certain events related to specific clinical processes always result in intense analysis to understand the cause and help prevent recurrence. When appropriate to the organization's services, these events may include significant adverse drug reactions, major medication errors, or other considerable untoward events.

Each clinic defines which events are significant and the process for intense analysis. When undesirable events can be prevented, the organization re-designs processes to reduce the risk of recurrence.

Measurable Elements of PIM.4.2

1.   Intense analysis of data takes place when significant adverse levels, patterns, or trends are identified.
2.   The clinic has established which untoward events are to be termed significant, for the purpose of intense analysis.
3.   The clinic has established the process for intense analysis of these events.
4.   Significant events are analyzed as soon as possible when they occur.

PIM.4.3   NASA OH assures that the analysis process includes comparisons internally, with other occupational medicine programs when available, and with scientific standards and desirable practices.

Intent of PIM.4.3

The goal of data analysis is to be able to evaluate a program in four ways: With itself over time, such as month to month, or one year to the next; with other similar programs, such as through reference databases; with standards, such as those set by accrediting and professional bodies, or those set by laws or regulations; and with desirable practices as identified in the literature, such as practice guidelines.

These comparisons assist the organization in understanding the source and nature of undesirable and unexpected change, and help to focus improvement efforts.

Measurable Elements of PIM.4.3

1.   Comparisons are made over time within the organization.
2.   Comparisons are made with similar programs, when possible
3.   Comparisons are made with practice standards, when appropriate.
4.   Comparisons are made with known desirable practices.

PIM.4.4   NASA OH assures that statistical tool and techniques suitable to the process or outcome under study are utilized.

Intent of PIM.4.4

Understanding statistical techniques is helpful in data analysis, especially in interpreting variation and deciding where improvement needs to occur. Run charts, control charts, histograms, and Pareto charts are examples of statistical tools of use in understanding trends and variations in health care.

Measurable Element of PIM.4.4

1.   Statistical tools and techniques are used in the analysis process, when suitable.

PIM.5   NASA OH assures that improvement in quality is achieved and sustained.

PIM.5.1   NASA OH assures that the organization's leaders undertake improvement activities for areas identified as priority.

PIM.5.2   NASA OH assures that assignments are made and support provided for the purpose of quality improvement.

PIM.5.3   NASA OH assures that staff members are trained, appropriate policy changes are made, and necessary resources are allocated.

PIM.5.4   NASA OH assures that changes toward improvement are planned and tested, and successful changes are carried out.

PIM.5.5   NASA OH collects data to show that improvements are sustained.

PIM.5.6   NASA OH documents continuing, systematic improvement and uses the information to develop strategic improvement plans.

Intent of PIM.5 through PIM.5.6
The organization uses the information from data analysis to identify potential improvements or reduce (or prevent) adverse events. Routine monitoring data, as well as data from intensive assessments, contribute to understanding where improvements should be considered and the priority level recommended. In particular, improvements are designed for the priority data collection areas identified by clinical and managerial leaders.

The organization uses appropriate resources and involves those individuals, disciplines, and departments closest to the processes or activities targeted for improvement. Responsibility for planning and carrying out an improvement activity is assigned to an individual or team, necessary training provided, and information management or other resources are made available.

Once a plan is in place, data are collected during a test period to demonstrate that the planned change was actually an improvement. To assure that the improvement is sustained, monitoring data are collected for ongoing analysis. Effective changes are incorporated into standard operating procedure, and any necessary staff education is carried out. The program documents those improvements achieved and sustained as part of its quality management and improvement program.

Measurable Elements of PIM.5
1.   The organization uses consistent processes to plan and implement improvements.
2.   The organization documents improvements achieved and sustained.

Measurable Element of PIM.5.1
1.   Priority areas identified by the organization's leaders are included in improvement activities.

Measurable Element of PIM.5.2
1.   Those responsible for a quality improvement are assigned and accountable.

Measurable Element of PIM.5.3
1.   Policy changes are made as necessary to assist with planning and carrying out quality improvement activities.
2.   Necessary resources are allocated for quality improvement activities.

Measurable Elements of PIM.5.4
1.   Proposed changes are planned.
2.   Proposed changes are tested.
3.   Changes that result in improvements are implemented and monitored.

Measurable Element of PIM.5.5
1.   Data are available to demonstrate that improvements are sustained.

Measurable Elements of PIM.5.6

1.   There is documentation of successful improvements.
2.   The documentation contributes to the development of strategic improvement plans.

Section II: Management-Directed Principles
Staff Qualifications and Competency (SQC)

SQC.1   NASA OH leaders define the desired education, skills, knowledge, and other requirements of all staff members.

SQC.1.1   NASA OH assures that staff member responsibilities are defined in a current job description.

Intent of SQC.1 and SQC.1.1
Clinic leaders define the particular requirements of staff positions. Defining education level, skills, knowledge, and other requirements are components of projecting staffing to meet patient and service needs.

Leaders consider several factors when projecting staffing needs: The mission of the organization; the mix of patients served by the organization and complexity and severity of their needs; the services provided by the organization; and technology used in patient care.

Individual staff members, who are not licensed to practice independently, should have responsibilities defined in a current job description. The job description is the basis for assignments, orientation to work, and evaluation of performance.

The organization complies with laws and regulations that define desired education levels, skills, or other requirements of individual staff members, or that defines staffing numbers or mix of staff for the clinic. The organization considers the mission of the health care program and needs of the patient population, in addition to applicable laws and regulations.

Measurable Elements of SQC.1
1.   The organization's mission, mix of patients, services provided, and technologies used are considered in planning staffing needs.
2.   Education, skills, and knowledge requirements for staff members are defined.
3.   Applicable laws and regulations are incorporated into the staffing plan.

Measurable Elements of SQC.1.1
1.   Staff members have a current job description.

SQC.2   Organization leaders develop and implement processes for recruiting, evaluating, and appointing staff, as well as other procedures as identified.

Intent of SQC.2
The organization provides an efficient, coordinated, or centralized process for the recruitment of individuals for available positions; evaluating the training, skills, and knowledge of position candidates; and appointing individuals to the staff.

Measurable Elements of SQC.2
1.   There is a process in place for staff recruitment.
2.   There is a process in place to evaluate the qualifications of new staff members.
3.   There is a process in place for the appointment of qualified individuals to the staff.
4.   These processes are implemented.
5.   These processes are uniform across the organization.

SQC.3   NASA OH uses a defined process to assure that staff knowledge and skills are consistent with patient needs.

SQC 3.1   NASA OH assures that each staff member's ability to carry out their respective job responsibilities is evaluated at the time of appointment and regularly thereafter.

SQC.3.2   NASA OH assures that there is documented personnel information for each staff member.

Intent of SQC.3 through SQC.3.2
Qualified staff members are hired by the organization through a process that matches the requirements of the position with the qualifications of the candidates. At the time of hire, new staff members are evaluated to assure that he or she can assume those responsibilities described in the job descriptions. This evaluation is carried out prior to or at the start of employment. The clinic to which the staff member is assigned carries out the evaluation of necessary skills and knowledge, and of desired work behaviors.

The organization defines the process and frequency of the ongoing evaluation of staff abilities. Ongoing evaluation assures that training occurs when needed and that the staff member is able to assume new or changed responsibilities. While such evaluation is best carried out on a continuous basis, there is at least one documented evaluation each year for each staff member.

Each staff member in the organization has a record containing information about qualifications, performance evaluations, and work history. These records are standardized and kept current.

Measurable Element of SQC.3

1.   The program uses a defined process to match staff knowledge and skills with patient needs.

Measurable Elements of SQC.3.1

1.   New staff members are evaluated at the time they begin their work responsibilities.
2.   The clinic to which the individual is assigned, conducts the evaluation.
3.   The organization defines the frequency of ongoing staff evaluations.
4.   There is at least one documented evaluation of each staff member every year or as permitted by the organizations' bargaining agreement.

Measurable Elements of SQC.3.2

1.   Personnel information is maintained for each staff member.
2.   Personnel files are standardized.
3.   Personnel files are kept current.
4.   Personnel files contain staff member qualifications
5.   Personnel files contain the results of performance evaluations.
6.   Personnel files contain the work history of the staff member.
7.   Personnel files contain a record of in-service education attended by the staff member.

SQC.4   A staffing plan for the NASA OH, developed collaboratively by the clinical and managerial leaders, identifies the number, types, and desired qualifications of staff members.

SQC.4.1   The NASA OH staffing plan is reviewed on an ongoing basis and updated as necessary.

Intent of SQC.4 and SQC.4.1

Appropriate and adequate staffing is critical to quality patient care. The organization's clinical and managerial leaders carry out staffing plans. The planning process uses recognized methods for determining proper levels of staffing e.g., the total number of employees at a NASA Center and the scope of work and hours of operation are used to determine the number of occupational specialty prepared licensed nurses that are required.

The staffing plan is written and identifies the number and types of required staff with defined skills, knowledge, and other requirements needed in each clinic. The plan for staffing should address the reassignment of staff members from one area to another in response to changing patient needs or staff shortages; the consideration of staff requests for reassignment or transfer; and the policy and procedure for transferring responsibility from one individual to another e.g., from a physician to a nurse or when the responsibility would fall outside such an individual's normal accountability.

Planned and actual staffing plans are monitored on an ongoing basis, and the overall plan is updated as necessary. When monitored on a clinic and service level, there is a collaborative process for the involvement of the organization's clinical and managerial leaders.

Measurable Elements of SQC.4
1.   There is a written plan for staffing the NASA OH.
2.   The clinical and managerial leaders develop the plan collaboratively.
3.   The number of, types, and desired qualifications of staff members are identified in the plan, using a recognized staffing method.
4.   The plan addresses the assignment and reassignment of staff members.
5.   The plan addresses the transfer of responsibility from one individual to another.

Measurable Elements of SQC.4.1
1.   The effectiveness of the staffing plan is monitored on an ongoing basis.
2.   The plan is revised and updated when necessary.

SQC.5   All staff members are oriented to the NASA OH, and to their specific job responsibilities at the time of appointment to the staff.

Intent of SQC.5
The decision to appoint an individual to the staff of a clinic sets several processes in motion. To perform well, a new staff member needs to understand the entire program and how his or her specific responsibilities contribute to the mission. This is accomplished through a general orientation to the organization, his or her role in the organization, and a specific orientation to the job responsibilities of his or her position.

 The orientation includes, as appropriate, the reporting of medical errors, infection control practices, the agency policies regarding telephone medication orders, and so on.

Contract workers are oriented to the organization, and specific assignment or responsibilities such as patient safety and infection control.

Measurable Elements of SQC.5
1.   New staff members are oriented to the organization, job responsibilities, and specific assignments.
2.   Contract (temporary) workers are oriented to the organization, job responsibilities, and specific assignments.

SQC.6   NASA OH assures that each staff member receives ongoing in-service and other education and training to maintain or advance his or her skills and knowledge.

Intent of SQC.6
To maintain acceptable staff performance, teach new skills, and provide training on new equipment and procedures, the organization provides, or arranges for facilities, educators, and time for ongoing in-service and other education. Education should be relevant to each staff member as well as to the continuing advancement of the organization in meeting patient needs. Medical staff members may receive education on infection control, preventive care, or a new occupational illness as appropriate to role function. Each staff member's educational achievements are documented in his or her personnel record.

Measurable Elements of SQC.6
1. Organization staffs are provided ongoing in-service education and training.
2. Facilities, educators, and time are provided or arranged in order to support staff education and training.
3. The education is relevant to each staff member's ability to meet patient needs.

SQC.6.1   NASA OH staff members who provide patient care and other staff as identified by the organization are annually trained in basic or advanced cardiac life support.

Intent of SQC.6.1
Each clinic identifies those staff members who are to be trained in cardiac life support, and the level of training (basic or advanced) appropriate to their role in the organization. The appropriate level of training is repeated annually. There is evidence to show the attendance and performance of each staff member.

Measurable Elements of SQC.6.1
1. Staff members who are to be trained in cardiac life support are identified.
2. The appropriate level of cardiac life support training is provided to each staff member.
3. Cardiac life support training is offered annually.
4. There is evidence to show staff member attendance and status of certification.

SQC.6.2   Aggregate data on staff education needs are the basis for the NASA OH's ongoing education program.

Intent of SQC.6.2
The organization collects data from several sources to assure understanding of staff education needs. Monitoring data from the facility management program, the introduction of new technology, skill and knowledge areas identified through the review of job performance, new clinical procedures, and plans to provide new services represent such sources of educational needs. The organization has a process to gather and integrate data from various sources in order to plan the staff education program.

Measurable Elements of SQC.6.2

1. The program uses various sources of data and information to identify staff education needs (needs assessment).
2. Education programs are planned based on these data and information.

SQC.6.3 NASA OH provides facilities, as appropriate, time for staff education, and training.

Intent of SQC.6.3

Organization leaders support the commitment to ongoing staff in-service education by making available space, equipment, and time for education and training programs. The availability of current scientific information prepares the education and training.

Measurable Elements of SQC.6.3

1. The organization provides facilities and equipment for staff in-service education and training, as appropriate to the needs of the participants and facility size.
2. The organization provides adequate time for all staff members to participate in relevant education and training opportunities.

SQC.6.4 NASA OH staff members are given the opportunity to participate in advanced education, research, and other educational experiences, to acquire new skills and knowledge and to support job advancement.

Intent of SQC.6.4

The program has a process to inform staff members of opportunities for advanced education and training, participation in research and investigational studies, and to acquire advanced learning or new skills. These opportunities may be offered by the organization, by a staff member's professional or trade association, or through education programs in the community. The organization supports such opportunities as appropriate to its mission and resources. Such support may be obtained through tuition reimbursement, scheduled time away from work, recognition for achievement, and other meaningful ways.

Measurable Elements of SQC.6.4

1. Staff members are informed of opportunities to participate in advanced education, training, research, or other professional experiences.
2. The organization supports staff member participation in such opportunities, as appropriate to its mission and resources.

SQC.7 NASA OH has an effective process for gathering, verifying, and evaluating the credentials (license, education, training, and experience) of those medical staff permitted to provide patient care without supervision.

SQC.7.1   NASA OH maintains a record of the current professional license, certificate, or registration, when required by law, regulation, or by the organization, of every medical staff member.

SQC.7.2   NASA OH assures that the credentials of medical staff members are reevaluated at least every three years to determine that their qualifications allow continued practice in the organization.

SQC.8   NASA OH has an effective process for authorizing all medical staff members to treat patients and provide other clinical services, consistent with their qualifications.

SQC.9   NASA OH has an effective process for medical staff participation in the organization's quality improvement activities, including evaluating individual performance, when indicated, and for periodically reevaluating the performance of all medical staff members.

Intent of SQC.7 through SQC.9

Physicians, nurse practitioners, and others who are licensed to provide patient care without clinical supervision represent those primarily responsible for patient care and care outcomes. Applicable laws, regulations, and the organization leaders identify those who are permitted to work independently.

The organization is responsible for assuring that these individuals are qualified to provide patient care without clinical supervision, and for specifying the types of care they are permitted to provide within the clinical setting. The organization assures that qualified medical staff appropriately match the mission, resources, and needs of those served

To assure this match, the organization evaluates medical staff member credentials at the time of appointment to the staff. An individual's credentials consist of an appropriate and current license, completion of medical education and any specialty education, and any additional training and experience.

The organization develops a process for gathering information, verifying accuracy from the original source when possible, and evaluating all in relation to the needs of the clinical settings and patients served. This process can be carried out by the organization or by an external agency, such as a Ministry of Health in the case of public programs. The process applies to all types and levels of staff e.g., employed, honorary, contract, and private community staff members.

The evaluation of individual credentials provides the basis for two conclusions. The individual can contribute to fulfilling the organization's mission and meet patient needs, and, if so, a description of clinical services this individual is qualified to perform. The clinical services provided by a medical staff member are disseminated to appropriate

individuals or locations (i.e. occupational and environmental medicine or internal medicine) within the organization.

These two conclusions are documented, and the latter becomes the basis for evaluating the individual's ongoing performance. A medical staff member's essential clinical role requires them to actively participate in the organization's efforts to evaluate their performance and clinical care outcomes. At any point during performance monitoring, evaluation, and improvement, that a medical staff member's performance is in question, the organization has a process to initiate further evaluation of that individual's performance.

Measurable Elements of SQC.7

1. Those permitted by laws, regulations, and the organization to provide patient care without supervision, are clearly identified.
2. Licensure, education, training, and experience are documented for these individuals.
3. Such information is verified, from the original source when possible.

Measurable Elements of SQC.7.1

1. There is a record of qualifications and performance maintained for every medical staff member.
2. The record contains copies of any required license, certification, or registration.

Measurable Elements of SQC.7.2

1. There is a process by which each record is reviewed every three years.
2. The individual's current qualifications to provide patient services is determined.

Measurable Elements of SQC.8

1. There is a process by which the individual is authorized to provide care for patients.
2. A medical staff member's licensure, education, training and experience are used to authorize the authority to provide clinical services that are consistent with qualifications.
3. The services to be provided are made known to appropriate individuals and sub-entities of the organization.

Measurable Elements of SQC.9

1. Medical staff members participate in the organization's quality improvement activities.
2. The performance of individual medical staff members is reviewed, when indicated by the findings of quality improvement activities.
3. The performances of individual medical staff members are reviewed periodically, as established by the organization.

SQC.10   NASA OH has an effective process to gather, verify, and evaluate nursing staff member's credentials (license, education, training, and experience).

SQC.10.1   NASA OH maintains a record of the current professional license, certificate, or registration, when required by laws, regulations, or the organization, of every nursing staff member.

SQC.11   NASA OH has an effective process to identify job responsibilities and assign clinical work based on the nursing staff member's credentials and any regulatory requirements.

SQC.12   NASA OH has an effective process for nursing staff member participation in quality improvement activities, including evaluating individual performance when indicated.

Intent of SQC.10 through SQC.12

The program needs to assure that it has a qualified nursing staff that appropriately matches its mission, resources, and patient needs. The nursing staff is responsible for providing direct patient care. Nursing care contributes to overall patient outcomes. The organization must assure that nurses are qualified to provide nursing care, specifying the types of care they are permitted to provide.

To assure this congruence, the organization evaluates a nursing staff member's credentials at the time of appointment. An individual's credentials consist of an appropriate and current license, completion of nursing education, and any additional training and experience. The organization develops a process to gather this information, verify accuracy, from the original source if possible, and evaluate the information in relation to the clinic and patient needs. This process can be carried out by the organization or by an external agency, such as a Ministry of Health in the case of public programs. The processes apply to NASA OH employed and contract nursing staff members.

Review of the qualifications of the nursing staff member provides the basis for assigning job responsibilities and clinical care activities. These assignments may be described in a job description or in other ways or documents. Assignments made by the organization are consistent with applicable laws and regulations regarding nursing responsibilities and clinical care.

The nursing staff member's essential clinical role requires active participation in the clinical quality improvement program. If, at any point during clinical quality monitoring, evaluation, and improvement, a nursing staff member's performance is in question, the organization has a process to initiate further evaluation of that individual's performance.

Measurable Elements of SQC.10
1.   The program has a process in place for gathering the credentials of each nursing staff member.
2.   Licensure, education, training, and experience are documented.
3.   Licensure information is verified, from the original source when possible.

Measurable Elements of SQC.10.1
1.   There is a qualification record maintained on every nursing staff member.
2.   The record contains copies of any required license, certification, or registration.

Measurable Elements of SQC.11
1.   Licensure, education, training, and experience of a nursing staff member are considered when making clinical work assignments.
2.   The qualification process takes into account relevant laws and regulations.

Measurable Elements of SQC.12
1.   Nursing staff members participate in the organization's quality improvement activities.
2.   The performances of individual nursing staff members are reviewed when indicated by the findings of quality improvement activities.

SQC.13   NASA OH has an effective process to gather, verify, and evaluate other health professional staff member credentials (license, education, training, and experience).

SQC.13.1   NASA OH maintains a record of the current professional license, certificate, or registration, when required by law or regulation, of each health professional staff member.

SQC.14   NASA OH has an effective process to identify job responsibilities and assign clinical work based on the credentials and regulatory requirements of the other health professionals.

SQC.15   NASA OH has an effective process for other health professional staff member participation in the organization's quality improvement activities.

Intent of SQC.13 through SQC.15
Health care programs employ or may permit a variety of other health professionals to provide care and services to their patients, or participate in patient care processes.

For those other health professionals permitted to work or practice in the clinical settings, the organization is responsible for gathering information and verifying their credentials. The organization is also responsible for identifying the types of activities or range of services these individuals will provide. This can be accomplished through agreements,

job assignments, job descriptions, or other methods. In addition, the organization defines the level of supervision, consistent with existing laws and regulations, appropriate for these professionals.

Other health professionals are included in the organization's quality management and improvement program.

Measurable Elements of SQC.13
1. The organization has a process in place to gather the credentials of other health professional staff members.
2. Licensure, education, training, and experience are documented.

Measurable Elements of SQC.13.1
1. There is a qualification record maintained on other health professional staff members.
2. The record contains copies of any required license, certification, or registration.

Measurable Elements of SQC.14
1. Licensure, education, training, and experience of other health professional staff members are considered when making clinical work assignments.
2. The process takes into account relevant laws and regulations.

Measurable Element of SQC.15
1. Other health professional staff members participate in the organization's quality improvement activities.

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